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#### Profit in Grafted Chestnuts.

Two distinctive methods of chestnut culture are in vogue in the New Jersey and Pennsylvania regions. The one is the method of grafting young chestnut sprouts (copies) with the scions of Japanese, European or native species, and depending on the roots and the old stump and the new roots which are developed to furnish nourishment to the young shoots. The other is to grow young plants from seed, graft them in the nursery when two or three years old, and the following year set them in the field in rows about thirty feet apart each way.

Where the natural stump is called a chestnut "grove." The experiments in chestnut culture carried on in central Pennsylvania have been principally of this type. In southeastern Pennsylvania and southern New Jersey the trees are usually seen growing in the nursery, and set in regular rows about thirty feet apart each way. When grown in this way they are described as a chestnut "orchard."

THE PROPAGATION OF THE CHESTNUTS in groves by the grafting of numerous young sprouts is decidedly the most advisable, both from an economic and purely horticultural standpoint. The grafted sprouts, by virtue of the old-established root system, are furnished an abundant supply of nourishment and make a surprisingly rapid growth, often bearing fruit profusely when only three or four years old. There is, too, less liability of failure in obtaining a full stand of trees, as the loss attendant upon transplanting is eliminated, while the great number of sprouts which spring up in a newly cut-over chestnut forest give abundant stock upon which to graft these scions. By grafting a large number of young sprouts per acre there is sure to be left, after deducting for all probable loss, a thick stand, which may be thinned as conditions require, thus furnishing a fine supply of new scions and keeping the ground continually covered, and the production, even at the outset, at its maximum.

#### SPROUT GRAFTING PAYS BEST.

Financially, the chestnut "grove" is to be preferred to the "orchard" for several reasons. First, the cost of cutting off the old stand and grafting the sprouts does not greatly exceed the expense of producing seedlings and grafting them in the nursery, since the chestnut timber removed is usually of value for fuel or railroad ties. Secondly, the ground which produces the sprouts is usually of little value for agricultural purposes, while in setting a chestnut "orchard" land is required which would be of considerable value for other purposes. Thus the cost of the first investment is in favor of the chestnut grove rather than the orchard; hence, from the latter it would be necessary to realize a greater income in order to pay interest on the larger capital tied up in the more expensive land. With the rough chestnut hillsides of Pennsylvania, it is a question of raising chestnuts or nothing.

#### THE "CHESTNUT KING."

One of the largest groves is that of C. K. Sober, Lewisburg, Pa., of whose methods something was said in a preceding article. About three hundred acres of wild chestnuts have been grafted to the Paragon variety. The crop last year was three hundred bushels, the trees being only five or six years planted. The average price per bushel is about \$7.

The venture is of course just beginning, and when the groves are old enough to bear commercial crops, the income should be enormous from the orchard of seventy-five thousand trees.

#### NEW GROVES.

are started as follows: On the stump, the suckers are cut as smooth as possible, the suckers are allowed to grow for a year, attaining an average height of five feet. In the second spring they are cut back to three or four feet to keep the heads low and trimmed clean. On these suckers the Paragon scions are grafted. Crown grafting is too slow and laborious, and the cost graft, which was originally used, has been entirely superseded by the tongue or whip graft.

According to this method, both sucker and scion are cut diagonally and the two diagonals fitted together. The joint is then wrapped with muslin and covered with wax prepared after Mr. Sober's own formula. A drop of wax is also put on the crown of the scion for protection from the rain and dew.

grafted. The grafts are put in thickly, not more than ten or twelve feet apart if possible. This produces a bushy crown sooner and averts danger of complete loss. As the trees grow and begin to crowd one another, the poorer specimens are cut down to give the stronger more room.

#### SKILLED WORK.

Assisted by a farmhand or two, Mr. Sober did the first grafting himself. Since then he has employed eight or ten nurserymen for five weeks each spring to do the grafting. Each nurseryman averages about fifty grafts a day, and in the chestnut grove there are now between seventy-five thousand and one hundred thousand trees, ranging from one to six years. Each grafter uses wax of a different color so that his work can be traced. So careful are the men in their work that ninety per cent. of the grafts are successful.

In the early years of the work much loss was occasioned by broken grafts. This danger was minimized by making the diagonal cuts on both sucker and scion longer and by adding more wax and muslin. The cloth holds the joint firmly, hastens the union of the wood, prevents air from getting into the cracks and is in itself a mechanical support. The growth is remarkable, a two-month-old graft often attaining a height of two or three feet.

The first year's growth is likely to be fan-shaped, in which case it is cut back to make a bushy top. The next year the tree begins bearing. This two-year-old tree is about shoulder high and bears two or three pinks of nuts. By the time the tree is five or six years old, it attains a height of from ten to twelve feet and bears several quarts.

#### PROFIT FROM WASTE LAND.

When the sprouts on a worthless old hillside are grafted and made to produce a valuable crop of nuts, as well as timber, the work is surely entitled to a place as a branch of forestry, since the essential elements of the true forest are all there. Furthermore, it will partly solve the problem of reclaiming the now worthless burned and waste lands which at present are a standing menace to the surrounding forests and a lasting shame to the Yankee ingenuity which has so well solved the problem of "complete utilization" in nearly every branch of commercial activity, except forestry.

The chestnut "orchard," it is true, often has the advantage of location, accessibility to market, freedom from underbrush and lessened danger from fire, while as an additional advantage the purely artificial orchard may be started in a region where the chestnut is not indigenous. But to the man who is after the largest returns in the shortest time, the chestnut grove which has been produced by grafting the coppice sprouts in the natural chestnut forest, promises the most.

#### GOOD GRAFTING.

In grafting chestnuts, S. C. Moon, Bucks County, Pa., has had much experience. His method is to cut the scions early, keep them dormant in a cellar or ice-house until the stocks start and the buds are well swollen, which is about the middle of April. Then cut off the tops of the stocks, put in tongue grafts, as shown in the illustrations, which were originally prepared for the New York Forest and Game Commission, and wrap with waxed muslin, care being taken that the stock and scion are about the same diameter. Mr. Moon says: "I have tried grafting one-year-old seedlings at the collar as they stood in nursery rows, also by taking them up and grafting on whole roots as apples are done, but without success." Budding in the ordinary way was also unsuccessful. The failure of these methods of grafting is a repetition of Mr. Sober's experiments, failure in both cases being the result.

#### ALBANY, N. Y.

Apples in Northeastern Pennsylvania. The phenomenal apple crop of 1903 in a year of general scarcity opened the eyes of the farmers of Wayne and other northeastern Pennsylvania counties to the fact that the apple is a farm product worthy of considerable attention.

In gathering and marketing that crop they learned a few lessons which, while expensive, will in future years be of inestimable value and will not soon be forgotten. Thousands of bushels of apples were sold to irresponsible buyers, the growers in some instances losing their entire crop, besides receiving nothing for the barrels, packing and hauling to shipping stations. One of our most extensive fruit growers lost his farm and home through speculation in apples, the losses he incurred being due mainly to inexperience in grading and packing. This inexperience on the part of packers was the means of many barrels of worthless fruit reaching market, injuring the reputation of all growers to a considerable extent.

Realizing that the causes of these losses could be remedied, every farmer who had an orchard began to investigate and study the subject of apple growing and marketing. Orchards were trimmed, dead limbs and trees removed, and insect pests destroyed. As a result of this improvement in culture, the crop of 1903 in Wayne, the leading apple-producing county, while below the average in quantity, was far above in quality. The young orchards yielded an exceptionally high grade of fruit. Between forty and fifty thousand barrels have been marketed the past season, a large portion going to Cincinnati and other southern points. The minimum price at the opening of the season, in September and October, was seventy-five cents per barrel. The maximum price paid during January and February was \$2. Early in the season many orchards of bulk apples were shipped, the

grower receiving twenty-five cents per bushel.

The older orchards were set out largely for family use. There are many varieties, the Kings, Baldwins, Greenings, Spys and Bellflowers predominating.

A cold-storage plant will be established at Winwood, in the northern part of the county, and a similar plant on an extensive scale will be erected at Honesdale, the county-seat.

Wayne County produces a fine quality of fruit, and with greater intelligence in selection, cultivation and care of orchards, packing and marketing, apple culture will become an important industry on her hillside farms.

ELMER E. REYNOLDS.

Wayne County, Pa.

#### Notings by Fruit Growers.

A well-cared-for apple orchard is a paying investment, but a neglected one is a dismal failure.—M. N. Edgerton, Potoskey, Mich.

I have found a successful method for the protection of trees in winter which consists of banking up the roots six or eight inches high by placing a few shovels of earth against the tree. If in the winter the trees are given a wash of whale-oil soap it will

wisteria, that leaped from cedar to cedar, passion flowers, hydrangeas, foxgloves, chrysanthemums, hollyhocks, coreopsis, gallardias and iris in the old front yard, that make the tears start and call up the fondest recollections. No matter what happened, whether Jack was sick or Jill went away, or the thousand and one perplexing cares that blight January dreams of June loveliness, still the flowers bloomed. Always there was a fragrant flower for the boy or girl home from college or the sick friend.

To the lawn embellished with hardy plants spring has no terrors of bare grounds. The first expense is the greatest, and after that, wind and sun and rain, nature's handmaids, increase the worth and loveliness from year to year. She declares an ever-increasing annual dividend. The dollar spent for tender annuals vanishes with the first frost. The hardy plant, on the contrary, grows stronger and increases the value of the land.

The period of bloom of many is not long; but a variety may be planted, so that, with only a moderate amount of care, a continuous period, from the first snowdrops in March, through a rich succession of bulbs, plants and shrubs, to the Michelmas daisy and hardy "mum" of November, an ever-

abundant pasture or meadow land, but the succeeding dry weather and the heavy growth of winter wheat proved nearly destruction to the young plants which will necessitate continued efforts in this direction.

Thus is learned a lesson of much value that "worn-out" pasture lands (so called) that have long been tramped and closely grazed, the crowns of the plant exposed to the rays of the summer's sun and the wind and frosts of winter, with a decreasing supply of forage from year to year, is not the occasion wholly of a low state of fertility or the absence of the elements of plant food essential for the life of the plant. The above experience seems to justify the statement that there are thousands of acres of unproductive and consequently unprofitable lands, not only here in this favored section of western New York, but which are to be seen as one travels in any direction outside of the State, that could be restored to a condition of fertility that would contribute to a favorable showing on the balance sheet of the farmer at the close of the year. Generally speaking, all such soil conditions require a system of tillage that will thoroughly break and pulverize the soil, admitting air and unlooming dormant plant food, making it available and awaiting a condition to be taken up and assimilated by the growing plant.

IRVING D. COOK.

Genesee County, N. Y.

#### Among the Farmers.

Give each cow a space three feet wide, and length as preferred. We think 4 feet about right.—Soy Bros., Kirk County, Mo.

There are a few essential points in the construction of a tieup: First, sunshine all day; second, water in the tieup or in a room connected, so the cows will not have to go out in the open air to get it; third, height enough from the ground so the dressing can be dropped down underneath; fourth, a plenty of ventilation in front of the cows, the rear will take care of itself; fifth, it should be so constructed that the cows can be kept clean with the least expense of labor; sixth, the cows should be so tied that they will have the largest amount of latitude and still be tied.—R. W. Ellis, Somerset County, Me.

#### Notes from Washington, D. C.

"The Care of Animals" is a new publication written by N. S. Mayo and published by the Macmillan Company of New York. The author seeks to prescribe the proper care of farm animals with special reference to their physical needs and comfort. Attention is called to the great importance of proper sanitation in preventing the development of animals' diseases. The volume discusses feeding, treating and exercising animals; their care in stables and yards; judging and handling horses; lameness and shoeing of horses; symptoms and treatment of diseases; breeding; veterinary obstetrics; a discussion of various animal diseases classified according to the part of organ affected.

Psoroptic, syphilitic and sarcocystic diseases of horses are the subject of a light and airy discussion in the Transvaal Agricultural Journal.

Experiments made on goats, asses and cattle show that these animals can be made immune from tuberculosis by gradually increasing inoculations of the tubercle bacilli. A large number of these animals included in a German experiment noted by the Department of Agriculture were brought to a degree of immunity where they resisted infection with doses of virulent bovine cultures of tuberculosis which would have been fatal to untreated animals.

A vaccine has apparently been discovered which is a specific for swine erysipelas. The Jenner Pasteur Institute at Budapest has prepared a serum which requires two inoculations at intervals of about twelve days. This method has been tested upon 9200 animals, not a single case developing erysipelas after vaccination.

The peregrinations of the beef measles worm in the slaughter house of Trieste are entertainingly traced by Herr J. Spadiglieri in the Ztschr. Fleisch-u. Milchw. This parasite is found most extensively in the internal and external muscles of mastication.

A review in the experiment station record of the Department of Agriculture recommends that about one-third of mash feed for poultry should consist of red clover or alfalfa. In cold weather fowls crave long feed, and in addition to the large amount of nutrition supplied, clover is believed to heighten the color of the egg yolk.

In a recent discussion of the stock interests of the West, Senator Gibson of Montana presented some figures which will likely be a surprise to Eastern farmers. Coming from a live-stock State himself, he maintains that the present general system of grazing herds over unimproved land, where it takes from fifteen to thirty acres to run a steer, should be displaced as rapidly as possible by farming methods of raising hay and winter feeding. Urging the repeal of the desert land law and other laws he says:

"Our present system of land laws is all that could be desired if it is the part of wisdom to give the ownership and control of the land in eight States of the Union to a few men and companies, who will use them for cattle ranges, rather than hold them for millions of homeless American citizens. Under pastoral stock raising there will never be large numbers of cattle in the Rocky Mountain States, but if farmers can occupy that country, which will surely be the case under a wise and just national policy, its live-stock interests after a while will assume immense proportions. In proof of this I have only to state that according to

the last census, Iowa, a farming State, having fifty-five thousand square miles, had five hundred thousand more cattle than Montana, Wyoming, Idaho, Washington, Utah, Nevada, Arizona and New Mexico, States and Territories covering an area of 821,000 square miles."

The Department of Agriculture has a bulletin in type on watermelons and muskmelons. A description of the method of growing Rockyford muskmelons—which is the Netted Gem—in the Arkansas valley in Colorado is as follows:

The melon requires a deep, warm, sandy loam soil well supplied with humus. In comparative tests by the Colorado station of alfalfa sod and cropped land manured with well-rotted barnyard manure or bone meal applied in the hill the best results were obtained on the alfalfa sod. In this case the product was nearly doubled, the quality was better, and the ability to resist fungus troubles greater. Alfalfa sod brought maximum returns, and in turn the melon easily subdued the alfalfa and put the land in splendid condition for succeeding crops. The land is prepared by rather deep plowing, harrowing and leveling. Furrows are then run with a shovel plow from six to seven feet, and the seed is planted by the side of the furrow in hills from five to six feet apart in the rows. Planting should be done from the first to the tenth of May. The carefully selected seed (ten to fifteen to each hill) should be planted not over one inch deep. Seed is germinated by running the irrigation water into the furrows and allowing it to reach the seed by being drawn up through the soil or by subirrigation, as it is termed. When the plants have four leaves, they are thinned to three in each hill. At this time the permanent irrigating furrows are run and cultivation ceases, except such hoeing as is needed to keep down weeds.

Planting overgrown nursery stock, because it can be secured cheaper than young stock, is a serious mistake. In the first place the handling is much greater, and again, such trees will never make the sturdy and vigorous growth of the younger trees. To use them at any price is poor economy.

Pure food discussion is occupying its usual proportion probably of Congressional debate. Senator Heyburn of Idaho made a convincing speech last week showing the absolute necessity of some legislation on this subject. Why was it necessary for him to make a speech? Every senator and every member of Congress knows that large proportion of the foods and drugs sold in the country are adulterated, many of them in such a manner as to be very unwholesome. Why does Congress, therefore, hem and haw and appoint special committees on this subject and then do nothing in the way of legislation? If the trouble lay in a man's private family or private kitchen, it would be settled soon enough and the groceryman and the druggist would be treated with scant courtesy if they attempted to show him that his household regulations regarding food adulteration were working a hardship upon those worthless, or losing their money in their businesses. Yet this is the situation of Congress. Special representatives appear upon the scene and tell our legislators and the committees that these proposed laws will work a great hardship upon the manufacturer and the merchant. And they say this in almost so many words, demanding that Congress shall consider the interests of the manufacturer, even though he may be practicing an absolute fraud upon the people.

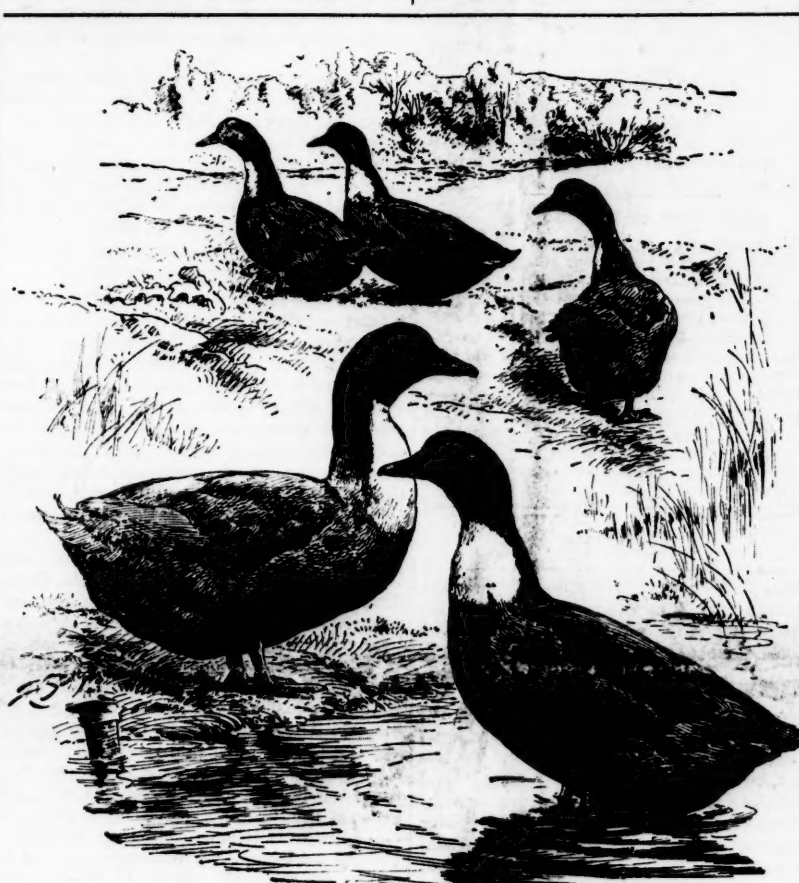
Where does the fault lie? With the special interests? Not particularly. It is human nature to get all you can and keep what you get. With Congress? Yes, Congress is responsible, but the fault lies with the people and with no one else. The man who votes to send a man to Congress should have an understanding regarding this matter which affects his own and his family's health, and just as specific an understanding as if the matter could be adjusted in his own household.

The Utah Experiment Station has from time to time made some very valuable experiments in feeding milk. The testimony on the value of skim milk for hogs as a food is convincing. Comparisons are made with like experiments of the Wisconsin, Colorado and New Hampshire Experiment stations. Hogs when fed milk and grain required much less dry matter to make a pound of gain than hogs fed on milk alone. The average of the Utah experiments showed one hundred pounds of milk to be equal to about twenty-four pounds of grain. In the Colorado experiments the hogs fed on milk and grain, gained more than twice as much per day and required but little more than half as much dry matter to each pound of gain as did the hogs fed on grain alone. Not only did the hogs fed on milk and grain gain more rapidly, but they grew larger and were in much better condition. The experiments show conclusively the great value of skim milk when fed in combination with grain as contrasted with feeding grain alone.

GUY E. MITCHELL.

Farm hands in some parts of the West are trying to outdores out of the farm program. This demand would be an awkward one for some of the large Eastern milk and dairy farmers whose work is about all chores. There are signs, however, that the Eastern farm-labor situation is improving a little, from the employer's standpoint, as compared with last year.

Be exceedingly neat, careful and prompt in the business management of the farm and you cannot help but succeed.—H. G. McGowan, Geiger's Mills, Pa.



PEN OF BLUE SWEDISH DUCKS.

Including First Prize Pair at New York and Boston. Bred by Exmoor Farms, Lebanon, Pa.

absolutely protect against winter killing, rabbits and the scale insects. The protection will last all winter.—J. C. Rich, Middlesex County, Mass.

Thirty years ago, the horticultural society of this section met and abused the Ben Davis; today it retails in Centralia at thirty cents a peck.—J. Webster, Carbondale, Ill.

The San Jose scale is surely killing out trees in all neglected orchards, which is bound to result in more intensive cultivation in this fruit district and is the surest remedy for the past over-supply of poor fruit and consequent low prices.—W. G. Jennison, Middlesex County, Mass.

I do not advocate any farmer to have a mixed orchard. It is injurious to the orchard and it is so to the tree. You cannot profitably raise apples and plums together, nor can you raise a few plum trees by themselves. I have at different parts in this State seen German prunes growing which will not bear at all. You must have a number of different plum trees together, or else they don't fertilize. I would not advocate or would not say under any circumstances you should have a mixture in the orchard. I have had orchards with apples and peaches and they did not do well. I have had orchards with dwarfed pears and apples and they did not do well. I have had apples and peaches and pears alone and they did well. This was my experience.—J. H. Ledy, Marion, Pa.

#### A Pica for Hardy Plants.

One of the odd traits of our shrewd, far-seeing people is that they annually spend thousands of dollars on tender annuals to the neglect of permanent, hardy plants. The annuals come late and early. The hardy plant responds to the first kiss of the winter winds, and while the ground is yet too wet to work, is pushing forth its wealth of budding buds.

The patriotic home thinks with a contented sigh: "My naturtiums and sweet peas I may not have for Memorial Day, but I am sure of syringas, flowering almond, lilacs, honeysuckle and roses." Yet, when orders are made up, there will be \$10 spent for seeds and tender plants to \$1 for hardy shrubs.

When we look back to our old homes 't is not the loveliness of the tender annual that makes our hearts swell. They faded and were gone. No, 't is the barberry by the well, the privet hedge at the rear, the heaven-pointing yucca, the syringa, weigela, spirea, althaea, hardy roses, the lilac of the valley, peeping from beneath the flowering almond, phlox, peonies, tulips, narcissus, jonquils, hyacinths, lilies, sweet Williams, pink, honeysuckle, Virginia creeper,



## Dairy.

## Big Holstein Milk Records.

The following is a brief summary of the official records of Holstein-Friesian cows that have been approved from March 15 to March 24, a period of nine days. These records are made under careful supervision of agricultural experiment stations, and the butter is estimated on the basis of 85.7 per cent. of a pound of fat to a pound of finished butter, the rule of the American Association of Agricultural Colleges and Experiment Stations.

During this period forty-three seven-day records, four fourteen-day records and five thirty-day records have been registered. The largest seven-day record was of a full-age cow at 22 pounds 13.3 ounces butter. Her test was continued thirty days and resulted in the production of 2152.7 pounds milk, containing 77.033 pounds butter fat, equivalent to 80 pounds 14 ounces butter, a trifle less than three pounds a day. Another full-age cow produced in thirty days 1807 pounds milk, containing 72.198 pounds butter fat, equivalent to 84 pounds 3.7 ounces butter. A four-year-old in the same length of time produced 1654.4 pounds milk, containing 64.905 pounds butter fat, equivalent to 75 pounds 11.6 ounces butter, and a three-year-old made a record in thirty days of 1676.2 pounds milk, 56.371 pounds fat and 65 pounds 10.4 ounces butter.

Of the seven-day records fourteen full-age cows averaged, age 7 years 7 months 6 days, days from calving 38, milk 435.3 pounds, butter fat 15.169 pounds, equivalent butter, 17 pounds 11.2 ounces. Three four-year-olds averaged, age 4 years 4 months 17 days, days from calving 35, milk 370.9 pounds, butter fat 13.871 pounds, equivalent butter, 16 pounds 3 ounces. Eleven three-year-olds averaged, age 3 years 5 months 25 days, days from calving 30, milk 382.4 pounds, butter fat 12.559 pounds, equivalent butter, 15 pounds 1.9 ounces. Fifteen cows aged 2 years 2 days, days from calving 43, milk 296.4 pounds, butter fat 9.804 pounds, equivalent butter, 11 pounds 7 ounces. S. Hoxie, Superintendent of Advanced Registry, Yorkville, N. Y.

## Saving Dairy Expense.

Can we better our methods of getting our product to the creamery? I believe the practice now in vogue of hauling the whole milk to the creamery and there having it separated is losing a great many thousands of dollars to the dairymen each year. Not only is there loss in the cost of hauling the milk, but in the feeding value of the skimmed milk.

Can we remedy this enormous expense? Is the question. Yes, I believe we can by the use of a farm separator, either power or hand. I believe we can educate ourselves to take good or better care of the cream thus separated than we can the whole milk. The cream thus separated upon the farm and delivered by the most up-to-date method will lessen the cost of manufacture at least one-half, and with a great improvement over the present system as regards flavors, etc.

The most successful operators of creameries in this State are where the milk is all separated on the farm. There is the West Salem Creamery that last year made 948,000 pounds of butter, and paid to the patrons \$190,000.

The cost of gathering the cream, making the butter and delivering it at the station was just two cents a pound, and that is what it has averaged for the past ten years, and the butter netted to the patrons, on an average, twenty-one cents a pound. Mr. H. D. Griswold, one of the patrons who produces more milk in the winter than in the summer, is averaging twenty-two cents a pound. There are 350 patrons, and they all have farm separators; there is no separator in the creamery here. One hundred patrons, who have a small number of cows, raise their cream by the gravity process, but they are fast getting the farm separators, and the gravity of process will soon be a thing of the past.—E. A. Croman, Grass Lake, Mich.

## Making Fancy Soft Cheese.

During the past year the Storrs Experiment Station has pursued investigations with the object of securing definite information as to how the soft cheese can be made. Professor Clinton has manufactured some of the cheese and has succeeded in getting the true flavor, odor and appearance of the imported cheese. After visiting the agricultural department at Washington, exhibiting the product of his experiments and laying the subject before Secretary Wilson, Professor Clinton received assurances of material aid from the department, and an agreement has just been entered into between the Storrs Experiment Station and the dairy division of the bureau of agricultural industry of the Department of Agriculture, by which the United States will aid in this investigation.

The work will be conducted from both a practical and scientific standpoint. E. B. Von Heyne of Waterville, N. Y., probably the most expert and best informed in the matter of making fancy soft cheese of any man in America, has been engaged to take charge of the practical part of the work. Alfred W. Bosworth, who for the past five years has been first assistant chemist of the Rhode Island Experiment Station, has been secured to conduct all necessary chemical investigations. Dr. Charles Thom of Cornell University will make a scientific study of the moulds which have to do with the ripening of this cheese. The Department of Agriculture will pay these three men, and the Storrs Experiment Station plans the experiments, furnishes the scientific laboratories and apparatus necessary for carrying on the work.

## Butter Still Declining.

Prices have dropped from three-fourths of a cent to a cent and a half per pound in Boston since last quoted. This market has been lower relatively than New York or the West.

The increasing receipts of fresh goods are beginning to affect the market, and the situation is a bad one for all concerned, but especially for those unfortunate dealers who are trying to clear away their holdings in cold storage. It is also bad for producers of creamy butter, since all but the best grades come into competition with storage goods held by dealers very anxious to sell at same price. The result is that there is not much demand for medium or low grades of fresh creamery and dairy butter. As soon, however, as grass-fed butter begins to arrive the situation should improve. We quote elsewhere 21 cents for top-grade creamery, but most lots of choice creamery are selling at least half a cent below that figure, only a small per cent. rating as strictly extra. There is a large supply on hand being urged for sale, and no prospect appears of improvement for the present. Box and print butter is decidedly lower, and only the best sells at top quotations as given. Cable advices to George A. Cochrane from the principal markets of Great Britain give butter markets as demoralized. Stocks are large, and accumulating. Home, Irish and Continental make is large. Finest Danish 22 to 23 cents, Finest Australian and New Zealand 19 to 20

cents. Finest Canadian 18 to 19 cents. Finest Russian 16 to 18 cents. American butter of all descriptions is meeting a very poor demand, and while receivers are willing to make liberal concessions, they cannot bring on the demand. American creameries are offered at 15 to 17 cents and ladies at 13 to 15 cents. Cheese markets are dull, and prices declining. Concessions of 25 to 50 cents fall to bring on free-living. Finest American and Canadian 10 to 10 1/2 cents.

Cheese is lower in Boston, working down slowly in sympathy with butter. From present outlook, the new make will begin at a low level, hence dealers are more desirous of closing out the old stock. At New York the demand from home trade keeps up very satisfactorily and holders generally seem inclined to feel steady on strictly fancy cheese; but on the under grades there is increasing anxiety to clean up, and prices have been lowered a little to suit the new make. The season is daily growing later, and while supplies of fodder-made cheese are not expected to be large, as many factories will not attempt to open up before May 1, still some of the smaller factories are running, and more will open upon. Scattering lots of new cheese are arriving, and there will be a gradual increase from this week on. Quality of the new make so far has generally been undesirable and attracting little attention from exporters, which is about the only outlet, as quality is not suitable for home-trade use.

Stock of butter and eggs in Quincy Market Cold Storage Company, April 9: Butter 34,183 packages; last year 23,946 packages; eggs 11,387 cases; last year 1069 cases. In Eastern Cold Storage Company, April 9: Butter 17,096 packages; last year 4033 packages; eggs 12 cases; last year 1009 cases.

## Agricultural.

## Eastern Hay Markets Dull.

Nearly all Eastern markets, including New York and Boston, report liberal supplies and dull or weak markets, but Philadelphia and Pittsburgh report rather light supplies and steady prices. Western markets show light to moderate receipts and prices firm or higher. Southern markets report an improved tone, except at New Orleans, which is over-supplied.

New York dealers are still buying imported rye straw, which is an excellent quality. Some wheat straw was imported last week and sold at \$22 per ton, which is nearly double the price of domestic wheat straw.

The New York hay market is reported very dull, feeders are not buying so freely now that the cold weather is over. The better grades, as usual, are closed out well, but the low grades accumulate and may have to be sold at lower prices to clean them out. It is thought that a canal navigation open for the plants for setting will be sent down from Canada. Canadian farmers feel confident that prices will improve later in the season. They probably judge from their experience of the last two seasons, when there was a wet crop, but this year could be quite different and there is no certainty of improvement.

## Southern Crop Conditions.

Farm work in Florida is going forward actively, the dry weather noted last having been broken by good showers in most parts of the region. The temperature is rather cool for the season, with a slight frost in the western part of the State. The tomato shipping season is at its height. Corn has received its first hoeing and promises well. These remarks in general apply to Texas and Louisiana, but there has been too much rain in some parts of Texas, otherwise conditions are favorable. Cabbage planting is being conducted on a large scale in the South. Growers report that the demand for the plants for setting is lower. The increasing supply of Southern Spanish and Bermuda onions affects the market for that vegetable. Most hot-house stock is in fair supply at nearly steady prices. Cress and radishes are working down. Rhubarb and asparagus are declining in price, quite fast about this time, but the native outdoor product will not be in for some time. Native cold-frame dandelions are quite plenty. Southern spinach and kale are plenty and cheap. Southern tomatoes are plenty and lower.

## Potatoes in Larger Supply.

Prices have declined a little from top, which was about \$1.25 for best lots, in quantity. The range for choicest grades is now about \$1.10 to \$1.20, although some dealers are still asking \$1.25.

The arrivals have been more liberal of late, but the supply is not much ahead of the demand, and it seems more likely that the full prices will be recovered, or exceeded than that lower prices should be reached. There is quite a stock of the Dakota Red variety, New Brunswick grown, on the market, and, as this kind is not a first-class table sort, its price ranges as low as 35 cents to \$1.10. These are bought mostly by pedlars, as regular dealers and then good enough for their trade. It may be noted that the top quotations are for Maine Hebrons and Green Mountains. The same price would, of course, be commanded also by Massachusetts or New York potatoes of equal quality and appearance. Massachusetts Early Rose, choleas, bring about the same as best Maine, but there are seldom enough of them on Boston market to fix a wholesale quotation. They are sold mostly in job lots or at retail to the smaller cities and towns, thus netting a better return to growers. The potatoes quoted in our market columns are closed out from the leading potato-growing sections. Sweet potatoes are in light supply and prices hold nearly unchanged.

The boom in the potato market at New York has been tolerably well maintained during the past week, and some dealers talk of a \$4 per barrel market the rest of the season. They say that the early Southern stock from Cuba and Florida will not amount to much, and that no potatoes of consequence will arrive before the middle of May, by which time the stock of old potatoes is likely to get scanty and prices high. Other dealers say that the prevailing high prices will reduce the demand to such an extent that there will be a surplus of potatoes at the end of the season, but taken as a whole the present indications continued high prices for the present. Not much foreign stock is expected. About fifteen thousand bags arrived from Germany last week, selling at \$3.50 per 165-pound bag, but prices are higher abroad, the supply scarce and the season is getting late for shipment. New potatoes in the extreme South are producing well, but the quantity is not sufficient to control the market. New potatoes in the Mobile market bring \$4.50 per bushel. Old stock brings \$1.10 at Indianapolis. Three thousand bushels of Idaho at \$1.10 in Homer, N. Y. Potatoes are scarce at Sioux City at \$1.40, and dealers predict an advance to \$1.50. The New York market for potatoes was weaker Thursday. Old stock generally costs high and holders are slow to shade prices, but to sell, outside figures are impossible to reach, except in a small way. New potatoes somewhat lower for all grades. Sweet potatoes continue firm, with occasional sales of baskets above quotations.

## Damage to Winter Wheat and Rye.

The Government crop report issued last week shows, as expected, a rather poor condition of wheat and rye for the time of year. The condition of wheat is placed at 75.5, which compares with 86.0 on Dec. 1. Last April the condition was 97.5 and the ten-year April average ending with 1903 was 84.1. The grain trade had quite generally expected a condition of about 80. The result was a sharp advance of one-half to three-quarters of a cent per bushel in the curb market for wheat.

The damage is general in all sections of the country, although the Pacific States show less decline than other localities. Indiana, Ohio and Oklahoma each report a condition fairly sixty-six per cent., compared with nearly one hundred per cent. last year. Kansas, Pennsylvania, Tennessee, Michigan are close to seventy-five per cent., compared with last year's report of nearly one hundred at the corresponding date. Illinois, Nebraska, Missouri report over eighty per cent., and California stands highest at ninety-two per cent.

The average condition of winter rye on April 1 was 82.3, against 97.9 on April 1, 1903; 85.4 at the corresponding date in 1902 and 89.1 the mean of the April averages of the last ten years. The statistician of the New York Food Exchange, Mr. J. C. Brown, figures a crop indication of 425,000 bushels winter wheat on the



THE "WHIP" OR "TONGUE" GRAFT.

See Article "Profit in Grafted Chestnuts."

basis of the April figures. His estimate based on the December figures was 422,800 bushels. In other words, there has been a reduction in the winter wheat indication of 67,000 bushels winter wheat.

The reckoning for last year's crop, as made by the same authority on the corresponding date of April, 1903, and based on the Government report, was 493,411,000 bushels, but the actual harvest turned out only 399,867,250 bushels, showing a decided reduction from the April estimate of that year.

The four trade is exceedingly dull everywhere. Numerous mills are either closed or running only part of the time. The stock in millers' hands is not large owing to the policy of ceasing operations when there are no orders, instead of piling up flour in anticipation of future trade. The extreme variations and price of wheat make it dangerous to manufacture flour for future markets.

## Vegetables in Fair Supply.

Old vegetables, carrots, beets, parsnips, squashes, cabbages, hold about steady, but turnips and onions are in larger supply and a shade lower. The increasing supply of Southern Spanish and Bermuda onions affects the market for that vegetable. Most hot-house stock is in fair supply at nearly steady prices. Cress and radishes are working down. Rhubarb and asparagus are declining in price, quite fast about this time, but the native outdoor product will not be in for some time. Native cold-frame dandelions are quite plenty. Southern spinach and kale are plenty and cheap. Southern tomatoes are plenty and lower.

## Literature.

This is the widely advertised "personal pronoun novel," in which a woman is supposed to lay bare to the gaping world the inmost secrets of her heart. "To write the bare truth, as far as it is known to me without flinching," is the purpose of the anonymous author as set forth in her preface. She tells us further that she is "a woman of the world, not quite the basest of her kind, but further yet from the best," and then she admonishes "those who are without sin cast the first stone." The reader naturally expects some highly seasoned sensations as he peruses the pages of the book. We find that the story-teller, who calls herself Sidney Lloyd—after the troublesome marriage question is settled—is the wife of a steady-going but not over-brilliant architect, and that they live in a fashionable suburb of Boston known as "C—". The failure of Mr. Lloyd to successfully compete for some of the work for a millionaire, who contemplated building a series of railroads, alarmed his wife, and rather than have her husband continue to turn out mediocre work she studied architecture, and being the daughter of an artist, soon became more proficient in his own profession than he was. When it chanced that this same millionaire, G. Ross Kimball, decided to build a magnificent country residence, her own ideas so pleased the railroad king that he not only paid liberally, but became unduly friendly with the accomplished married woman. The events which are "confessed" from this point concern the ripening of the intimacy between the two, and the eventual night when their relations reached a climax.

There are but comparatively few characters in the book. The "heroine," whose mind is now doubtless relieved by her "confessions," naturally dominates the book. We find her the somewhat familiar type of ambitious "society" woman, who wants the good things of life and is willing to run a little risk to secure them. She is not wholly bad, however; indeed, she has many redeeming qualities, and after the scheming millionaire tells her some facts about herself which she had not considered before, she suffers real shame and sorrow. Irving Lloyd, the husband, deserved a better fate and a happier life (he dies before the confessions are ended). The millionaire villain is, of course, a monster, who, as he, perhaps, the most unconventional people of all the company. For those who enjoy the morbid self-analysis of a woman the book will be read with eagerness. Some may find a lesson in the bitter experiences of the heroine. (New York: D. Appleton & Co., Price, \$1.50.)

The fact that this book is written by Fannie Merritt Farmer, best known as the former principal of the Boston Cooking School and author of "The Boston Cooking School Cook Book," stamps it with the seal of authority. It is a volume which will make a special appeal to any one having care of invalids, particularly in the matter of diet, and the hundreds of personally tested recipes afford a variety of wholesome and appetizing dishes for those who are at their wit's end in the matter of preparing food for the sick and convalescent. Not only do we find a host of recipes and invaluable suggestions as to diet in special diseases, but there is much scientific information which the nurse or mother may study and digest with profit. We have not before us chapters on "food and its relation to the body," "estimates of food values," "food

and health vs. drugs and disease," "infant feeding," "child feeding," and then follows important general advice in regard to food for the sick and cookery for the sick. In giving recipes, special attention is devoted to the different ways of preparing beverages, eggs, soups, fish and meats. Nor are the desserts overlooked. One whole chapter is devoted to diabetes, and then there are diets also suggested for constipation, diarrhoea, stomach troubles, obesity, typhoid fever, Bright's disease, consumption, etc.

"It is safe to state," says Miss Farmer, "that two-thirds of all disease is brought about by errors in diet—either the food principles have not been properly maintained, or the food has not been properly cooked. To one accustomed to visiting children's hospitals, or children's wards in general hospitals, this statement cannot seem an exaggeration, as the results of malnutrition are everywhere in evidence."

One of the features of this scientific book is the calorific or heat values of the recipes which are given. The book is illustrated with sixty half-tone illustrations, which add to the beauty and utility of the volume. Two indices in the rear render this vast storehouse of information easily accessible. An element of safety is added to any home which possesses "Food and Cookery for the Sick and Convalescent." (Boston: Little, Brown & Co., Price, \$1.50 net.)

A recent addition to the "Popular Library of Art" is Mrs. Ady's (Julia Cartwright's) sketch of Botticelli's life and work. The book of two hundred pages we have the story of the life and achievements of this Florentine painter of the Renaissance, who by his art and personality stamped himself indelibly on the pages of history. The biographer in this book points out the strong individuality of his conception, the depth and originality of his thought, his fine poetic imagination and sense of beauty, all of which make an especial appeal to the modern mind. Botticelli (whose real name, by the way, was Alessandro di Filippo), unlike the other great painters who flourished towards the close of the fifteenth century, was a typical Florentine artist, one who spent the best of his years in Milan and went to die in France. Michael Angelo belongs more to Rome than to Florence, and his most famous paintings are to be seen in the Vatican chapel. But Botticelli spent almost the whole of his life in Florence. He became the favorite painter of Lorenzo de' Medici, who employed him to record the triumph of his house and the ruin of his foes on the walls of Florence.

The pages of this book record his work and inform us where his famous paintings are now to be found. It is interesting in this connection to note that Botticelli's "Madonna and Child with Angel" (the Chigi Madonna), which was discovered twenty years ago in a dark corner of Prince Chigi's palace in Rome, is now the property of Mrs. J. Gardner of this city, after having been the object of a somewhat notorious lawsuit. His eventual life was brought to a close on the seventeenth of May, 1510, and it recalled that for four hundred years his name remained in oblivion, until his high artistic excellence and rare genius were recognized during the latter part of the nineteenth century. The book is illustrated with photographic reproductions of Botticelli's greatest paintings, and the student will find a valuable bibliography at the close. (New York: E. P. Dutton & Co., Price, 75 cents net.)

Another addition to the valuable "Series of Historic Lives" is a biography of Samuel de Champlain by Edwin Asa Dix, M. C., U. S. A., in which the career of the West Indian explorer, the founder of Quebec, the leader of expeditions against the Iroquois and the governor of Quebec is lucidly set forth. Born in the little hamlet of Brouage, on the Bay of Biscay, about the year 1567, Champlain became a soldier at an early age, and he served until Henry IV. of France, at thirty he turned from soldiering to the life of a sailor, and we next find him exploring the West Indies. About the time of his return to France that country awoke to the fact that although the new world had been discovered about one hundred years previously, she had no footing upon it. Champlain and De Chastes were both desirous of undertaking explorations and conquest in behalf of their country. Champlain was destined to be the founder of New France, and the story of his voyage of discovery up the St. Lawrence forms an exceedingly interesting chapter. After the death of De Chastes, Champlain made another trip to the new world and spent the winter of 1604-5 in Acadia. The next year Champlain and De Monts, his new companion, passed along the entire New

England coast as far as Cape Cod, anchoring in Boston harbor, where they made a short stay. These same voyagers entered the harbor of Plymouth nine years before the visit of Capt. John Smith and fifteen years before the Pilgrims landed on Plymouth Rock. But in 1607 France, like every other nation, save Spain, had failed to obtain possession of any portion of the vast domains which make up the American continent. That year, however, Champlain set out on another voyage which resulted in the founding of Quebec, and soon we find him allied with the Algonquin Indians and at war with the Iroquois. If Champlain had then known of the real power and prowess of the five nations which inhabited central New York, he would have thought seriously before committing himself and his country to a lasting warfare with their formidable tribe. We have Champlain's own description of the first battle with the Iroquois, a skirmish that was the cause of a bitter and bloody war on the part of the Iroquois against France. Another battle which resulted in the wiping out of all the Iroquois who participated in the fight, and the wounding of Champlain only intensified the anger and resentment of the Iroquois. We find Champlain in France again in the year 1610, when at the age of forty he married Helene Bouille, a girl of twelve. But Helene returned to her home, while Champlain returned to the wilderness. Subsequent chapters are devoted to the beginnings of Montreal, the search for the North Sea, and a winter among the Hurons. In the meantime Champlain was publishing his voyages which became exceedingly valuable and met with great favor. In 1620 he made another trip to Canada, taking for the first time his young wife. While these additional explorations were in progress history was being made in Europe. Richelieu became interested in Canada and the rehabilitation of the colony on a large scale was promptly planned. But at the same time King Charles of England was declaring war against King Louis XIII. of France. Champlain's return to Canada as governor in 1628 was a gala occasion. He was then showing signs of old age. His sixty-six years had been active ones, and he had made heavy inroads on his bodily vigor and endurance. With the years he had grown more and more religious. He nevertheless lived an active life in Quebec until his death, in 1635. Apparently he left no enemies. He was, perhaps, the most picturesque figure in all Canadian history. Both Parkman and Fliege pay him high tributes. Mr. Dix has done justice to his subject in his biography. We have a concise account of his career with many contemporaneous events brought in. There are many illustrations of real value. (New York: D. Appleton & Co., Price, \$1.00 net.)

Commonwealth of Massachusetts. MIDDLESEX, ss. PROBATE COURT.

To the heirs-at-law, next of kin, and all other persons interested in the estate of SARAH ROBINSON, late of Arlington, in said County, deceased.

WHEREAS, a certain instrument purporting to be a last will and testament of said deceased has been presented to said Court by Catherine Robinson, who prays that letters testamentary may be issued to her, the executrix therein named, without giving security on her official bond.

You are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the third day of May, A. D. 1904, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by mailing, postpaid, or delivering a copy of this citation to all known persons interested in the estate seven days, at least, before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this twelfth day of April, in the year one thousand nine hundred and four.

W. E. ROGERS, Asst. Register.

Commonwealth of Massachusetts. MIDDLESEX, ss. PROBATE COURT.

To the heirs-at-law, next of kin, creditors, and all other persons interested in the estate of ELIZABETH WELLS, otherwise known as ELIZABETH COOPER, who died in Paterson, in the State of New Jersey, intestate, leaving estate in said County of Middlesex to be administered, and not leaving a known husband or heir in this Commonwealth.

WHEREAS, a petition has been presented to said Court to grant letters of administration on the estate of said deceased to Frederick W. Dallinger, public administrator in and for said County of Middlesex;

You are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the third day of May, A. D. 1904, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said public administrator is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this ninth day of April, in the year one thousand nine hundred and four.

W. E. ROGERS, Asst. Register.

Commonwealth of Massachusetts. MIDDLESEX, ss. PROBATE COURT.

To all persons interested in the estate of GEORGE W. TUCKER, late of Bradford, in the County of Merrimack, and State of New Hampshire, deceased, or in the personal property hereinafter described, and to the Treasurer and Receiver General of said Commonwealth.

WHEREAS, John E. French, appointed executor of the will of said deceased, has presented to said Court his petition requesting that as such executor he be entitled to certain personal property situated in said Commonwealth, to-wit: A deposit of \$1000 and interest in the New England Savings Bank, and praying that he may be licensed to receive or to sell by public or private sale on such terms and to such person or persons as he shall think fit—or otherwise to dispose of, and to transfer and convey such estate.

You are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the third day of May, A. D. 1904, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is ordered to serve this citation by publishing the same once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by serving a copy of said citation on the Treasurer and Receiver General of said Commonwealth fourteen days, at least, before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this seventh day of April, in the year one thousand nine hundred and four.

W. E. ROGERS, Asst. Register.

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Life Membership, \$25. Advance Register in charge of Sept. issue, as above, who will furnish all information and blanks therefor. Address: F. L. HOUGHTON, Putney, Vt., for information relating to Registration of Pedigree.

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Price of Herd Register, \$1 per Single Volume. But-terfly Jersey Cows, including all tests received by the Club, \$2.00. For extending pedigree to five generations, \$1.00 per cow. For extending pedigree to ten generations, \$2.00 per cow. For Registering—To Members, \$1.00; for non-Members, \$2.00. For animals under two years of age, and \$2.00 for animals over two years of age. For duplicate certificates of either entry or transfer, 25c each. For duplicate certificates of either entry or transfer, 25c each. For duplicate certificates of either entry or transfer, 25c each.

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## Poultry.

## The Useful Faverolles.

These are a French general-purpose breed made up by a long selection in breeding from an excellent strain of mixed fowls kept on farms in a district called Faverolles. The origin is thus very much like that of the Rhode Island Reds, and, like the Reds, they are a distinctively practical and useful breed.

Among the chief points of excellence claimed for them are quick growth, hardiness, winter laying and good quality as poultry. The chicks are very hardy and easy to raise, either of brooders or hens, provided they are given as much liberty as possible; for after the first week they are seen foraging on their own account with- out being wild, and prefer food of their own finding if it can be obtained. They are always in good flesh and make good broilers when very young, not being rangy and bony like most of the large breeds. The chicks are white when hatched, but on subsequent growth more color appears. They grow and mature very quickly until the final change into adult plumage when, like Brahmas and Dorkings, the feathers come slowly.

The Faverolles is a good winter and spring layer, not easily checked by climatic changes. The eggs vary in color from white to a deep brown; usually they are a pale brown. The eggs from mature birds are above the average in size. The hens are moderate sitters, that is to say, they are easily broken up, but if allowed to sit are excellent for the purpose. The pullets begin to lay very early.

The neck and saddle-hackles of the male are yellowish or creamy white, the beard, mottling, breast and under color are black, the legs and feet are white. There are a few brown feathers on the back, which spread out to the shoulders. Whatever white there is of a creamy tint. The tail is short, broad and black in color, with bronze overtones. The hen is salmon or fawn color for the most part, with creamy white breast and under color. Her hackles should be black with a lighter color, making them striped brown without any black in them. Faverolles chickens can be hatched quite late in the season and still mature and begin to lay as early as the other medium-sized breeds. The average birds as bred in my yards are about the size of the larger strains of the Wyandottes and Plymouth Rocks.

Glens Falls, N. Y.

## Successful Hatching. II.

Before starting the incubator be sure that it sets level. It should be warmed up for a week, at least, in advance and get dried out before the eggs are put in. It is a good plan before putting in the eggs to see if the machine heats evenly. To do this, take five accurate thermometers, place them on the bottom of the egg tray, one three inches from each corner, and one in the center. Let the machine warm up an hour or so, then open it, draw the egg tray out quickly and see what the readings of the thermometers are. If there is more than two degrees difference between the highest and the lowest, there is a leak somewhere, and it should be found and fixed before you put in the eggs.

Sometimes the trouble is due to a season crack, but most times it is caused by the door or door jams shrinking and letting out the heat when the machine is built. If a practical one, it has all the vents that it should need to maintain a uniform temperature and keep perfect ventilation. If other vents occur, either by shrinking or season cracks, it upsets the whole system and makes the machine of little or no working value. Now, concluding that the machine is in order, place three thermometers very near the center of machine; one with the bulb 12 inches up from the bottom of the egg tray, one on the egg tray bottom and one underneath the egg tray on the nursery bottom. If the machine is a practical one and in order, when the top thermometer reads 103°, the one on the tray should read very near 98°, and the one on the nursery bottom not less than 90°. If the thermometer on the nursery bottom should read less than 90°, and the one on the tray less than 98°, this trouble can be overcome by raising the nursery bottom to within two inches of the egg tray and placing a sheet of burlap sack upon the nursery bottom. After the machine is in order, adjust the regulator so that the top thermometer will not get above 103°, if the temperature of the incubator room is not below 60°. If it is below 60°, the temperature of the incubator should be increased one-eighth of a degree to every five degrees that the room is less than 60°, or the chicks will be more than twenty-one days hatching. As your success in brooding depends largely on what condition are the chicks when hatched, it is very important that the incubator should be operated so as to have all the chicks out of the shell by the twenty-first day.

I find the best time to put the eggs in the machine is in the morning. This gives you time during the day to regulate the heat and get the eggs up to proper temperature before night.

I do not open the machine for the first thirty-six hours. At the end of thirty-six hours I open it, take out the tray and change ends with it. At the end of forty-eight hours I begin to turn the eggs night and morning, and change ends with the tray each time. When I turn the eggs I take the tray out of the machine and place it on a bench which I have for that purpose. I take about twenty-four eggs out of the center of the tray, and take from the sides and corners eggs enough to fill the space where I took the eggs out. Then I place both hands on top of the eggs, push the right hand from me in a circle to the left and draw the left hand toward me in a circle to the right, moving the eggs toward the center. I then replace the eggs that I removed from the center of the tray to the sides and corners. This changes the position of the eggs so that they all have about the same conditions all through the hatch. By this system of turning and shifting the eggs you will hatch chickens that would otherwise have died in the shell, simply because they did not have the same conditions of those that did hatch.

If your egg trays are covered with slats and egg turners, you cannot turn the eggs in this manner. With my experience, I prefer the plain wire bottom tray that is lower in the center than it is on the sides. This style of tray keeps the eggs in touch with each other at all times, so that the heat is conducted from one egg to another, similar to natural incubation, which is of great importance.

I do not cool the eggs until about the twelfth day; then I cool them once a day, one minute the first day and add a minute each day until the twentieth day in the morning. I do not open the machine after the thirty-six hours old. After the eggs have been setting about twelve days, they began

to generate heat themselves, and the regulator should be adjusted so that the thermometer should not read more than 104°. Do not change the regulator after the twentieth day. If the thermometer should read 105° the twenty-first day, it will not harm the chicks. A rapid rise in the temperature from the sixteenth day up indicates a good hatch. Always attend to the eggs before you do the lamp so that your hands will be free from kerosene oil, as the oil is sure death to the chicks if you get any on the eggs. I find the best time to fill and trim the lamps, if you are only running a few machines, is at night.

I usually test the eggs about the eighth day. They should be tested by the tenth day, as the sterile eggs are not so warm after that period as the fertile ones, and if they are left in the machine, and if they should be changed by the nearest to the bulb of the thermometer, it would cause you to keep the fertile eggs at too high a temperature for success. The machine should be thoroughly cleaned and aired after each hatch.

Wakefield, R. I. J. ALONZO JOCY.

## Poultry Trade Quiet.

Reported for this paper by S. L. Burr & Co.: "There is very little change to note in the condition of the market on poultry since our last letter to you, although now that the Jewish holidays are over the probabilities are we shall see a somewhat easier market on live poultry of all kinds, particularly live fowl. In fact, at this writing, they are selling fowl a cent a pound less than they sold last week, but aside from this there is practically no change in the situation, and we look for no special change for some weeks to come."

At New York supplies of fresh-killed fowls were quite moderate, but the general demand is slow. Invoices show some increase, more especially from the South and Southwest, which causes a somewhat unsettled outlook for the last of the week, though most holders inclined to feel fairly steady on choice medium-sized fowls at 13¢ cents, but large fowls very dull and weak at 13¢ cents. Scarcely any desirable fresh-killed Western chickens or turkeys have been arriving. Nearby broilers and squabs are nominally unchanged. Frozen poultry rather quiet, but prime grades hold about steady. With supplies of live poultry reported for the week not considered, excessive prices were held fairly steady on fowls and chickens, but roosters are a shade easier. Turkeys have been in light supply, but running very poor, and prices low and irregular. Ducks about steady. Geese thin and sell slowly at irregular prices. Live pigeons hold dull and unchanged.

## Eggs Fairly Steady.

Both shipments and demand have been active, with the result that prices show but slight changes. These are all in the downward direction, and amount to not more than a fraction of a cent per dozen. The quotations vary a little from day to day, according to the supply, but there is no pronounced change in the situation. It may, at time of writing, be called a shade easier. Duck and goose eggs are plenty and slightly lower.

The estimated capacity of the refrigerators in the United States, adapted for storage of eggs, has been placed at seven million cases. Not more than two-thirds of the capacity has ever been used, even in those years in which there was an oversupply. Indications are this year that the stock going into storage will be larger than ever before, and the effect upon prices next fall can only be guessed at. Most of these eggs are going into storage costing the owners more than they did last year.

Storage men complain of the high price of eggs and egg-filters. This scarcity of these supplies shows the enormous demand and the large quantities of eggs which are being stored. Some dealers are waiting to put away storage eggs in May, June and July and hope that the price will go down toward the end of the storage season. The demand for storage is keeping up the price remarkably well so far.

## Borticultural.

## A Promising Early Grape.

The McKinley grape has been out about two years, and is attracting considerable attention as affording a rare combination of quality and earliness, which would seem to adapt it to Northern localities. It is a cross between Niagara and Moore's Early. The introducer is Allen L. Wood, the Rochester (N. Y.) nurseryman, who writes:

"We certainly have here a grape that is of the very highest quality and the only grape of which the pulp can be chewed without getting any disagreeable taste. It



THE EARLY MCKINLEY GRAPE.

is a very productive and strong-growing variety. The McKinley Early ripens two weeks ahead of the Niagara, is fully as productive and has berries like Moore's Diamond. The bunches are compact, firm, and will withstand handling. The fruit is sweet clear through, having no acid flavor around the seeds. It is fully as strong a grower as the Niagara, and should prove to be a good shipper."

Clover makes good silage; but we must have some dry fodder to feed with the silage and generally you can make hay or field-cured clover a great deal easier than you can corn, so we better make the corn into silage and the clover into hay, although clover makes good silage if it is properly put in.—C. P. Woodlief, Ft. Atkinson, Wis.

## Apples in Moderate Supply.

The apple situation may be considered a little better. Prices are no higher, but the pressure on the market has been relieved. Opinions vary. Some dealers think the season will close firm and higher, while others believe the stock in hand is sufficient to keep prices at about present level. The prevailing price for first-class apples of the standard kinds is \$2, but many lots are sold at a lower price. There are a few Black Oxford from Maine on the market, selling at about the price of Russets and Baldwins. These are small, dark-red apple, pinkish inside and of mild, pleasant flavor. The thick, tough skin makes them good keepers. The New York market is firm and unchanged. The prices quoted are for best grades, both from cold storage and cellars. Some of the cold-storage



PAIR OF SALMON FAVEROLLES, PHELPS STRAIN. The New French General Purpose Breed. See descriptive article

age apples show scale and are not so good as those from cellars. A few of the fancy cold-storage lots, on the other hand, quote higher than top figures given, reaching sometimes \$3.50 to \$4. Maynard & Child: 5000 barrels; Baldwins sold at Liverpool in general, \$2.35 to \$3.37; Ben Davis, \$2.55 to \$3.87; many landing slack.

## Current Happenings.

The death of Abby Morton Diaz removes one of the most notable New England women of our day, and one whose golden deeds will live long after the present generation has passed away. She was a genuine descendant of English people who came to the Pilgrims to Plymouth, and she was herself a native of this historic town. But her chief claims for remembrance do not rest on her ancestry, but on her philanthropic endeavors. She began to show the bent of her mind and the goodness of her heart early in life, for at the age of nine she was the secretary of a juvenile anti-slavery society. One of the most beneficent exhibitions of her more mature labors was the founding of the Women's Educational and Industrial Union of this city, of which she was the president at the time of her lamented death at the advanced age of eighty-three, at Belmont. She grew up in a humane atmosphere, for her father, her father, believed that brotherly love should be the ruling spirit in daily life. He was the friend and follower of Horace Mann in the direction of improved public education, and he was also a strong anti-slavery advocate. Among his intimates were William Lloyd Garrison, A. Bronson Alcott and Ralph Waldo Emerson, and they were frequent visitors at his home when his daughter Abby was young. Mrs. Diaz, after the death of her husband, opened a private school, having previously taught in public schools, to support herself and her two sons, and she was active in many other ways as a bread-winner, managing and taking part in various entertainments, and even showing her executive ability on more mournful occasions. But it was as a writer of juvenile books that she was more generally known, and her William Henry letters will always be a source of pleasure and delight to the youthful mind. The "Jimmy Johns," "Polly Cologne" and "The Cat's Arabian Nights," from the same facile pen, will always be treasured for their sweetly humorous characteristics and for their reproductions of the thoughts, aspirations and pastimes of childhood. They have done no end of good in the moral education of the little ones. Mrs. Diaz was a tireless worker, yet she lived to a green old age, honored and respected for her public and private work. She believed in deeds and was not merely a "wordy philanthropist" great at the pen."

Mr. Charles Henry Parker, who has served a half century as warden and vestryman of Trinity Church, was complimented with an appreciative resolution on his recent retirement from office. In this tribute the proprietors of the church express their sincere wishes for the future happiness and welfare of Mr. Parker, and congratulate him and themselves that Trinity Church—of which his grandfather, Bishop Parker, was the rector when American independence was declared—and in which his greatly respected father and himself have been stated worshippers, has been the nearest to his heart of all the institutions of trust and usefulness in which he has faithfully served his fellow citizens.

Mrs. Maria Avery Daniels Pike of Colrain, Mass., recently celebrated her one hundredth birthday, and on this notable occasion the Dorothy Hancock Quincy Chapter of the Daughters of the Revolution presented the venerable centenarian a record shield, commemorating the fact that she was the last of the four real daughters of the Chapter. Among her callers was David Avery of East Charlemont, who attained the age of ninety-nine last January, and among the other guests present was her grandson, Frank T. Daniels of Boston, who is in the employ of the Metropolitan Water and Sewerage Board, as an engineer. Mrs. Pike, as a nurse, made a notable name, and as a school-teacher before her marriage was an inspiration to the young under her charge that had a far-reaching and beneficent effect. The Dorothy Hancock Quincy Chapter was represented by the regent, Mrs. N. S. Cutler; the vice-regent, Mrs. Gilbert L. Rist; Mrs. F. W. Bangs; Mrs. F. W. Foster; Mrs. L. O. Gunn; Mrs. Inez Holton; Mrs. R. O. Stetson; Mrs. W. L. Severance; Mrs. George Starbuck; Mrs. A. W. K. Bardwell and Miss Lena Stratton.

The appeal made by the John Howard Industrial Home for funds is meeting with generous responses. Yet more money is needed to carry out the good intentions of the management in looking towards the purchase of a building which, if secured, will lighten the expenses of the institution some \$1200 annually. It is thought that between \$15,000 and \$20,000 will carry out the plan successfully. Most of the discharged prisoners that the home has helped have been permanently reformed and have been started on the right road to earn an honest living. The superintendent, Albert Arnold, Warrenton street, will send documents and reports to any one who desires to learn fully the details of the good that has been accomplished by a charity that ought to appeal strongly to all earnest reformers and lovers of their kind. Mr. James H. Earle, 178 Washington street, is the treasurer of the John Howard Industrial Home.

The Workrooms for Unskilled Women in New York city are a great blessing to many old and poverty-stricken women who can find no employment elsewhere. A bath, cleaned

garments and a hot mid-day meal are given to many an applicant at this institution, and all are provided with an opportunity to obtain a fair wage in food, clothing or money. From many and cases, attention is called to a woman with a large family, who, when nearly crazed with trouble, was told by her employer, after one day's trial, to go home and stay until she got her head straight. She was carried along at the workrooms for over a year, until, under the influence of kindness and good food, her physical and mental vigor was re-established. Thus she was able to keep herself and children from starving. The income of the institution is obtained from the sale of carpets and rugs made by poor women, and by annual subscriptions and donations. Miss Kate Bond is president of the society and Mrs. Charles Ostrander its treasurer.

## The Sauterier.

I was invited to an informal engagement party recently, where the singing of popular songs formed part of the entertainment. One young man, however, seemed to take no part in the festivities, but sat in a corner as glum as Dick Deadeye. Something had evidently gone wrong with him during the day, and nothing could apparently tempt him from his gloom. Finally one of his chums said:

"Oh, Frank, come up here and warble something, even if it is bright and appropriate."

The melancholy man went to the piano, and, after turning over several pieces of music, chose "Old, and Only in the Way," which he sang in a dismal sort of way. This started a general burst of laughter, in which the vocalist could not help joining, while the prospective young bride said good-naturedly:

"I shan't send you any of my wedding-cake, Mr. Jacques."

Two friends of mine, commercial travelers, were in a smoking-car going westward, not long ago, when there entered a long and lanky negro, who said to one of them:

"Say, boss, I want to get to Cleveland, and I ain't got no money to take me there. Can't you let me ride between the seats that you and your companion are sitting on?"

The drummers were much amused at this request and readily fell into the scheme proposed as a joke. They piled their overcoats and gripsacks in front of the man who wanted a free ride, but they wondered how he could endure the cramped position which he had to take, especially as his back was against the steam-pipes. They expected to see him, Ethiopian on the side before they got out, but he endured the ordeal of fire with great equanimity, and when they left him at a station to find some equally good-natured passengers, he exclaimed:

"Bress you, gemmen! May you never know the want of a nickel! I was rather a warm baby, but I likes the heat."

A clergyman of my acquaintance is in the habit of lifting his eyebrows instead of bowing when he meets a parishioner in the street car. He did this to a lady the other day, and she responded in kind, evidently thinking that what was sauce for the goose must be sauce for the gander.

"The worst stop I ever encountered was the semicolon," said a drummer who recently visited Boston and could not get a pneumonia or a grip chaser after eleven o'clock P. M. at the hotel that he patronized. He avers that Massachusetts punctuation is worse than the old blue laws, and wants a period put to it.

I went into a barber shop the other day, and the manipulator of the shears and razor had about him an odor that did not come from "Araby the Blest."

"Have you been to Bermuda lately?" I asked.

"Next thing to it, boss," he replied. "I have just been making the acquaintance of one of its onions."

"Well," I retorted, "the next time you indulge in such intimacy, do it in the privacy of your own home, or in some far-off isle of the sea, and not in the public haunts of men. The onion, like the bull, may be 'healthy,' but it's darned disagreeable when it's inside the other fellow."

I got a bad shave that time, for the barber thought I was a little too strenuous in my remarks, but they were not half as strong as his breath.

There are plenty of strawberries in the market just now, but I prefer to wait until the natives arrive before I partake of the blushing fruit. A persistent vendor who has been in the habit of visiting my house every morning importuned me, the other day, to buy a couple of boxes of strawberries, and I told him decidedly that I did not care for them so early in the season.

"When does ye begin on them," he exclaimed in a tone of deep disgust, "next Labor Day, perhaps?"

"I don't trade with that fellow any more."

"I am not long for this world," said an acquaintance of mine the other day.

"Oh," I answered, "you've only got the tired Spring feeling that never precedes a funeral, though it frequently brings a man to his bier."

Roast young pig was advertised on a bill of fare that I took up at a restaurant not long since, and with memories of Charles Lamb's essay on the origin of this dish, I gave an order and received in return a plate nearly full of fat, with a streak or two of very tough lean meat half cooked.

"Do you call this young pig?" I asked the waiter.

"Yes, sir," he responded promptly and audaciously.

"Humph," was my response, "it might have been youthful once, but just now it looks as if it were going the whole hog."

It indeed reminded me of the mutton that is served up for spring lamb in many eating-houses, and I marvelled that there were so few menus, outside of first-class hotels, that were not a delusion and a snare.

When we are turned into pure spirits, there will be no eating, no drinking and no microbes, and we shall be happy; but now death is standing by with every bit we put in our mouths and every breath we draw, if we may trust advanced scientists. What's the use of knowledge, anyway; where ignorance is bliss, etc.?

When the Burnett bill appropriating \$1,500,000 for road improvement was taken up in the Senate April 8, Senator Burton offered an amendment increasing the appropriation to \$2,000,000, and in his argument charged the Republican party and senators with unfair dealing with good road advocates. The amendment was defeated, and the bill carrying a million and a half dollars was passed.

The new farm superintendent May 1 at the Massachusetts Agricultural college is Elihu A. Forstall, a graduate of New Hampshire Agricultural college, class of '97. Mr. Forstall was formerly superintendent of the college farm at Durham, N. H.

Last Monday the annual Boston Horse Show was opened in Mechanics building, and everything went to one of the most successful exhibitions ever held here. While the actual number of entries is a little smaller than the record, the quality is the highest ever seen here, and it is now beginning to be realized that it takes quality as high to win at the Boston show as in Madison Square Garden, to which Boston ranks second. E. D. Jordan is again a leading exhibitor, and Reginald Vanderbilt, who is not quite a newcomer, has the largest string he has ever shown here. The leading exhibitors from New York and Philadelphia will be W. M. V. Hoffman and E. T. Stotesbury. Of heavy harness horses and high steppers there is a splendid entry, and the feature events on the programme have filled well. Probably as much interest will be taken in the hunt club competitions as any others on

the list, and the local organizations will have to look well to their laurels. In class 129 for the best three qualified hunters from one hunt they will have to reckon with the Cameron Run Hunt Club, H. Smith, M. F. H.—of Alexandria. In class 130 will centre the greatest interest for the huntmen. This is for the three best qualified hunters to be shown with five couples of English hounds by the master and two whips in hunt uniform. There are four competitors, including the Meadow Brook Hunt Club—Foxhall Keene, M. F. H. Mr. Keene has some very fine hounds and at the Madison Square dog show in New York he won from a field of six.

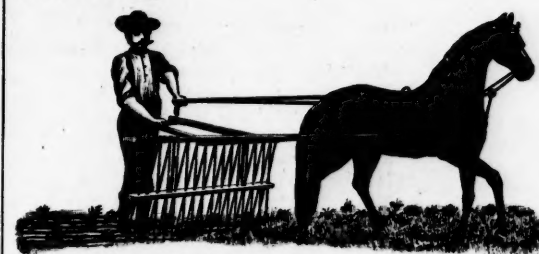
Rain has fallen at intervals for several days lately in Maine, and the effect upon water courses has been marked. At Bangor the Penobscot river has been rising at the rate of a foot a day for the past five days, so that there is now a depth of five feet and seven inches flowing over the crest of the dam at the head of tide-water. Up river the streams and lakes are rising rapidly, and from all over the State come reports indicating that the long drought is at last broken. There was a slight rise resultant from rains some weeks ago, but most of that water had run away when the present rainy period began, and the situation was critical. The rivers were so low that their waters were unfit for drinking purposes, and there has been more typhoid fever in this section this spring than for many years. General conditions are favorable for early and satisfactory driving, and the lumbermen are much encouraged, although two or three feet of the hard snow is reported on the headwaters of the large Maine rivers, and three to five feet on the upper St. John.

At a meeting in Waterville, Me., of the Kennebec river land owners, three hundred fire wardens were appointed. These men are "squatters," owners of sporting camps and others residing in the timber section, and all vitally interested in preserving the forests from destruction by fire. Last year, the first under the new fire warden law, the wardens prevented many fires and extinguished many others. The annual appropriation is \$10,000, and a balance remains in the treasury from 1903, although it was the worst year since 1880 for fires.

The rapidly growing share of the United States in the commerce of Japan is illustrated by a statement just prepared by the Department of Commerce and Labor, through its bureau of statistics. The feature of this official statement, which is of especial interest in its relation to the growth of American exports to Japan, is the fact that the United States has made much more rapid gains in the imports of Japan than any of her principal rivals.

## Breed's Universal Weeder and Cultivator \$4.50

Absolutely the Most Durable and Practical Weeder Ever Made for all Conditions of Soil. Never Clogs. Removable Tooth.



It will save its cost in labor every day it is used on hood crops or for putting in grass seed or millet. It pulverizes the soil and makes a perfect seed bed. This weeder is the most exceptional bargain ever offered to farmers. It is our regular 7 ft. 6 in. Removable tooth weeder, made of best material and skilled workmanship and perfect in every way. Formerly sold for \$5.00, and far superior to others

now selling at that price. SPECIAL OFFER: We will ship one Weeder to any reader of the Massachusetts Ploughman direct while they last, for \$4.50, on receipt of \$4.50.

Order Now! Circulars and full information free.

Universal Weeder Co., 32 South Market St., Boston, Mass.

## WE HAVE SOME VERY GOOD PERCHERON STALLIONS

THAT we can sell at Your Prices and we have some excellent Percheron stallions that you will want to buy at Our Prices. Don't wait until some one else gets what you want. Come soon and see every first-prize winner at the last Minnesota State Fair, excepting one.

T. L. & J. L. DeLANCEY, Importers and Breeders Northfield, Minn. On C. M. & St. F., C. R. I. & P. and C. W. Rys.

## KEISER BROS., KEISER BROS. & PHILLIPS, KEOTA, IA., RED KEY, IND., IMPORTERS AND BREEDERS OF

## Percherons, Shires and French Coach Stallions.

Never better prepared and disposed to furnish you such excellent horses at such conservative figures as at the present time.

## ROSEMONT HEREFORDS HEADED BY THE FAMOUS ACROBAT 68460

Assisted by MARQUIS OF SALISBURY 16th 138894, the best son of Imp. Salisbury. Catalogue on application. Correspondence solicited. Visitors welcome.

CHARLES E. CLAPP. BERRYVILLE, Clark Co., Va.

## SINNISSIPPI SHORT-HORNS

FRANK O. LOWDEN, Prop.

Herd headed by the prize-winning bull VALIANT 171067, assisted by the grand young Scotch bull GOOD MORNING 182755.

Young Bulls Suitable for Service for Sale.

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## OUR COFFEE ORIENTAL MALE BERRY JAVA Satisfies You!

Give us a chance on your TEA. We assure you fair prices and purity in TEA.

FORMOSA, OOLONG,	35c.,	40c
ENGLISH BREAKFAST,	50c.,	60c
SOUCHONG, JAPAN,		
GUNPOWDER, HYSON,	75c.,	90c
INDIA and CEYLON TEAS	\$1.00,	\$1.25 Sign of the Big T Kettle



Afternoon Tea, Flowery Pekoe, \$1.50.

## ORIENTAL TEA CO.,

Scolly Square, Opp. Subway Station, Boston, Mass.







## 500,000 FARMERS

Scattered all over the world  
are finding a

## DE LAVAL CREAM SEPARATOR

the best investment  
they ever made in dairying.

Might not this be true with you too?

Let the nearest local agent bring you a  
machine to see and try for yourself.That is his business. It will cost you  
nothing. It may save you a great deal.If you don't know the agent send for his  
name and address—and a catalogue.

## THE DE LAVAL SEPARATOR CO.

NEW ENGLAND AGENTS:

STODDARD MFG. CO.  
RUTLAND, VT.

GENERAL OFFICES:

74 CORTLANDT ST.,  
NEW YORK.

## The Markets.

## BOSTON LIVE STOCK MARKETS.

ARRIVALS OF LIVE STOCK AT WATERTOWN  
AND BRIGHTON.

For the week ending April 20, 1904.

	Shotes	Fat	Veals
Cattle	4788	9310	26,547
Sheep	4515	9318	2345
Horses	386	3229	19,101

This week's arrivals of live stock at Watertown and Brighton.

Last week's arrivals of live stock at Watertown and Brighton.

One year ago's arrivals of live stock at Watertown and Brighton.

Horses, \$10.

Prices on Northern Cattle.

BEEF—Per hundred pounds on total weight of

tallow and meat, extra, \$4.25 to \$4.75; first

quality, \$4.50 to \$4.75; second quality, \$4.25 to \$4.50;

third quality, \$4.00 to \$4.25; a few choice single pairs,

\$4.50 to \$4.75; some of the poorest butts, extra,

\$2.50 to \$3.50. Western steers, \$4.00 to \$4.50. Store

cattle—Farrow cows, \$15 to \$20; fancy milch cows,

\$20 to \$25; yearling milch cows, \$10 to \$15;

two-year-olds, \$15 to \$20; three-year-olds, \$20 to \$25;

steers—Per pound, live weight, \$2.50 to \$3.00;

extra, \$3.00 to \$3.50; some of the poorest butts, extra,

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stable there was a good demand for work horses,

of 1000 to 1200 lbs. in pairs, at \$400 to \$500 for better

class. A good trade at North &amp; Hall's stable;

sold 3 loads at \$100 to \$125.

Union Yards, Watertown.

Tuesday—Good arrivals of cattle came from

the West, with less from New England. The

market for beef cattle has somewhat improved.

Butchers ready and willing to buy and pay

stronger prices; fully to rise on good quality. A

light run by O. H. Forbush this week; none

selling over \$1.00. J. A. Hathaway sold for the

trade 30 steers, of 1000 lbs. at \$100, of 1500 lbs.

at \$125; 25 do., of 1200 lbs. at \$100, of 1500 lbs.

at \$125. Local cows and springers.

These were received in fair numbers, but not

heavy, as the trade will not warrant heavy sup-

ply. Sales of common cows, \$25 to \$35; extra cows,

\$40 to \$50; choice cows, \$50 to \$75.

Fat Hogs.

Market is easier, unless contracted for a week

ago. Western hogs sold at \$10 to \$12; local hogs

at \$10 to \$12. Sheep Horses.

There was a good run of Western, but the best

grades, both of sheep and lambs, sold higher by

10 to 20¢ per 100 lbs. Butchers bought freely of

Western, the only source now available at the

present time for large numbers. From New

England arrivals come in straggling. J. S.

Henry sold 1 spring lamb, 45 lbs., at \$10; 2 do.,

at \$12. Western sheep sold at \$3.50 to \$4.00

per 100 lbs. Lambs sold at \$4.00 to \$4.50 per 100

lbs. Veal Calves.

Market held about as last week for mixed lots,

mostly selling at \$10 to \$12. W. F. Wallace

sold 70 calves, 130 lbs. at \$10. J. S. Henry, 40

calves, 140 lbs. at \$10; 37 do., of 145 lbs. at \$12;

2 better grades at \$12.

Live Poultry.

The market was easier, with 50,000 lbs. fowl

at \$12 to \$14; chickens at \$12 to \$14; roosters at \$10

to \$12.

Drovers of Veal Calves.

Maine—The Libby Company, 40; Thompson &amp;

Hanson, 30; D. K. Kiley, 30; Farmington Live

Stock Company, 175; E. R. Foye, 20; H. A. Gil-

more, 15; U. C. Clark, 11; S. E. Eaton, 7; H. M.

Lowe, 10; W. A. Gleason, 32.

New Hampshire—J. H. Foss, 14; Jones &amp; Moul-

ton, 14; Ed Sargent, 27; Frank Wood, 70; W. F.

Wallace, 125.

Vermont—Fred Savage, 70; R. E. French, 20;

A. Williamson, 40; N. H. Woodward, 75; B. H.

Combs, 20; W. A. Ricker, 315; B. F. Ricker &amp; Co.,

125; F. S. Atwood, 65; J. S. Henry, 60.

Massachusetts—J. S. Henry, 145; O. H. For-

bush, 40; R. Connors, 11; H. A. Gilmore, 30;

J. S. Henry, 125; J. S. Henry, 40; J. S. Henry, 40;

J. S. Henry, 40; J. S. Henry, 40; J. S. Henry, 40;

J. S. Henry, 40; J. S. Henry, 40; J. S. Henry, 40;

J. S. Henry, 40; J. S. Henry, 40; J. S. Henry, 40;

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J. S. Henry, 40; J. S. Henry, 40; J. S. Henry, 40;

J. S. Henry, 40; J. S. Henry, 40; J. S. Henry, 40;

## BOSTON PRODUCE MARKET.

Wholesale Prices.  
Poultry, Fresh Killed.

Northern and Eastern—	17291
Chickens, Phil. good to fancy	22-28
Broilers, 3 to 5 lbs. to pair, 1/2 lb.	22-28
Squab broilers, 1 lb. each, 1/2 lb.	15-16
Ducks	13-15
Fowls	12-13
Geese	12-13
Pigeons, fancy, 1 pair, 1/2 lb.	12-13
com to good, 1/2 lb.	10-11
Squabs, 1/2 lb.	10-11
Western—	20-23
Turkeys, choice	17-18
Turkeys, fair	16-17
Turkeys, common to choice	15-16
Fowls, fair to choice	12-14
Ducks	12-14
Geese	12-14
com to good, 1/2 lb.	10-11
Squabs, 1/2 lb.	10-11
Western—	20-23
Turkeys, No. 1	17-18
Chickens, good to choice	16-17
Broilers, 1/2 to 3 lbs.	15-16
Broilers, over 3 lbs.	16-17
Fowls, choice	12-14
Geese	12-14
com to good, 1/2 lb.	10-11
Squabs, 1/2 lb.	10-11
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Chickens, good to choice	16-17</



## Our Homes.

## The Workbox.

**CROCHETED PIAZZA SCARF.**  
Five skeins cream-white Shetland fleec, 1 skein blue, 1 skein pink, 1 skein white. Chain 70 in white. Turn and make 15 shells of 4 double, each caught down between with single crochet. Double crochet is wool around hook, insert hook, draw through 2 stitches twice.

For the second row use green, taking up the stitches on the needle as follows: Fasten wool with a single on top of last shell, chain 3, wool over needle, insert between fifth and sixth stitches, pull up loosely, and continue until all 8 stitches are taken up. Pull wool through all the loops, chain 3, and catch down on top of next shell with single crochet. Continue across row.

Repeat these two rows, putting in colors as follows: One row of white, 2 rows of green, 2 rows of white, 2 rows of pink, 2 rows of white, 2 rows of blue, 1 row of white. The last row should contain 15 shells.

Make 72 rows in white like first row. Keep the edges even by making a half shell at each end of every other row.

To make the second border, work same as first, beginning with white on the inside edge, but making 2 rows instead of 1. Increase this end by putting an extra half shell at each end of every other row.

## SHADED PIAZZA SCARF KNITTED.

Three skeins white Shetland wool, 1 skein light pink, 1 skein light blue, 1 skein corn color, 2 No. 15 1/4-inch wooden needles; cast on 200 stitches; 14 rows white, 6 rows pink, 5 rows blue, 5 rows yellow, 5 rows blue, 6 rows pink, 14 rows white, 3 rows pink, 4 rows blue, 3 rows yellow, 4 rows blue, 5 rows pink, 14 rows white, 3 rows pink, 3 rows blue, 2 rows yellow, 3 rows blue, 4 rows pink, 14 rows white, 3 rows pink, 2 rows blue, 1 row yellow, 2 rows blue, 3 rows pink, 14 rows white, 2 rows pink, 1 row blue, 1 row yellow, 1 row blue, 2 rows pink, 14 rows white, 3 rows pink, 2 rows blue, 1 row yellow, 14 rows white, 4 rows pink, 3 rows blue, 2 rows yellow, 3 rows blue, 4 rows pink, 14 rows white, 3 rows pink, 4 rows blue, 3 rows yellow, 4 rows blue, 5 rows pink, 14 rows white. Crochet a loop fringe on each end, making 24 loops for each loop.

EVA M. NILES.

## The Nutritive Properties of Milk.

This article contains within itself all the elements of nutrition, and contains them in the most digestible form. An adult person may live entirely upon fresh cow's milk; and many who are so dieted in our hospitals return to their homes in a better condition than when they left them. The amount of real nourishment in milk is far greater than is generally supposed. It has been demonstrated that "ten grains of new cow's milk, when consumed in the body, produces sufficient heat to be equal to a lifting power of 1266 pounds one foot high." These facts alone should bring home to our minds the great importance of influencing our legislators to secure for the public a regular supply of fresh cow's milk.

Recently a form of milk has been put upon the market which experience has proved to be a perfect food, and which is as easily and completely digested as any substance known. Happily, it is not one of those mysterious preparations which so often fascinate the public; it is simply the result of milk evaporation. By a gentle heat all the water contained in the milk is driven off as vapor, and the residue is the fine white powder named "plasma," which for all practical purposes is the solid and nutritive constituents of the milk. Plasma can be used with any other article of diet, since it is tasteless in itself, or it can be prepared in a dozen different ways, simply flavored and sweetened according to taste. It would be extremely difficult to drink a quart of milk several times a day, but by comparatively small bulk of plasma the nutrition of the several quarts would be secured without the large amount of water. The late Professor Virchow lived entirely upon this diet for some fourteen days, and he never felt hungry, and was always well. —J. Cater, M. D., in Chambers's.

## Mental Control of Hunger.

The sensation of hunger can be modified by mental effort. By promptly refusing to entertain the mind with thoughts and images of food and its relish, the gastric secretion will receive a check, and the sense of hunger be kept in abeyance. The "posthumous notations" of Antonio Viterbi—a Corsican lawyer—who, in the year 1821, was sentenced to death for some political reasons, furnish some very valuable arguments in favor of this view. In order to escape the death on the scaffold, for which he had an uncontrollable aversion, he resorted to death by starvation, and while awaiting a slowly approaching dissolution, took notes of the rise and fall of the feelings coursing through his consciousness.

From these notes we learn that on the third day of his death-fast the sensation of hunger disappeared. His head was clear, his thoughts sharp and lucid, and his eyesight extraordinarily keen. As the days went by he felt the coming and going of sensations of thirst, but not of hunger. His consciousness remained alert and rational to the last. On the eighteenth day of his self-imposed starvation he died. Neither thirst nor hunger had seriously annoyed him, and his last moments were calm and painless.

The calm intelligence and full realization with which Antonio Viterbi approached his fate naturally held his thoughts and imagination away from representations of food. Hence the reflexes transmitted from the gastric nerve-endings to the brain failed to elicit a conscious response. Hence no flow of gastric juice and no sensation of hunger.

The same physiological principle is manifested in the behavior of demented and hysterical persons, whose minds being busy with subjective images of fright and horror, have been found to starve for weeks without ever making known any sensation of hunger.

On the other hand, if we inquire into the mental conditions of starving sailors, straying travelers, and other unfortunate who have been forced to face starvation with their bodies in full health, and their minds bound with chains of torturing fascination to the imagery of a riotous appetite, we will find that their sufferings have been truly indescribable. Like a Tantalus in the tale, who, surrounded by all the sumptuous viands of a highly wrought and morbid imagination, which he found himself unable to seize and to enjoy, so these unfortunate, with their gastric juices flooding the walls of their stomach, and

with storms of irritating impulses rushing through their brain, have suffered untold agonies of hunger and thirst. In most cases of this kind the victims lose their reason before they lose their lives.

By the strength of these arguments we are entitled to the conviction that there is a power resident in every individual, enabling him to control and subdue, more or less successfully, his morbid cravings for food and drink. The secret of breaking a habit or a passion lies in the simple rule, hands off! Keep the mind off the enticing subject. Refuse promptly the idea of its gratification by removing the image from the field of consciousness. The undue secretion of the gastric glands will soon cease, and with them the morbid cravings.

A study of the physiology of hunger may thus furnish us a powerful lever in the up-building of character and manhood. Indeed, the only real value to be found in the study of any science, philosophy or religion, lies in the bearing such a study may have on the elevation and purification of the thoughts and motives of men.—Medical Record.

## Getting Used to City Life.

The rapid and accelerating influx of people into the cities, resulting everywhere to a relative, and in many places to a positive, depopulation of the country districts, is one of the most interesting of the social phenomena of our time. New methods of rapid transit, of building and of sanitation make larger cities continually more practicable, and concomitantly with increase in the material facilities more people are acquiring the most difficult of the liberal arts, the art of living together.

This art is acquired by a series of compromises, by continually trading off more of one's individuality for the privilege of associating with other people. The isolated tree on the hilltop develops individuality. Its youthful twigs are thrust out in any direction and grow into large, irregular branches, close to the ground. From its unaided battle with the elements it becomes tough and twisted and gnarled. The trees of the forest are straight, stiff and uniform; they are both taller and weaker. They can only show individuality by some slight and temporary differences in the growth of their topmost limbs and foliage.

As the countryman arrives in the city the first thing he finds out is that he must catch step with the crowd. It matters not what gait he has been accustomed to; that which is best suited to his reaction-time and his respiration, and which is the result of a compromise between his ambition and his leg-length; he must reduce himself to the average; he must divide by the common denominator. Here is no band whose accented notes he can follow. He can see no drum major whose staff sways to the beat. There are no drill regulations to prescribe the length of his step. But he cannot hesitate on the edge of the current. He must "fall in" at once, and catch step with the pace set by the majority, a ruling body which is always in season, executes its own laws, and from which there is no appeal. If he walks slower he becomes a public nuisance, he is hustled from behind. He cannot go faster, save at the disadvantage of continually going around people and losing time by having to walk further to gain the same distance. So he, too, catches the swing of the invisible and inaudible metronome.

Next after the adjustment of his feet comes the adjustment of his head. There are so many people in the world that it is very difficult for an ordinary man to be original. But in the way in which he diminishes his hat even a man of no unusual ability can show some idiosyncrasy. It was a great relaxation in discipline when our army substituted the soft hat for the cap. As soon as a man is allowed to misshape his own hat it opens the way for all sorts of irregularities. Foreign military critics began to complain that our soldiers were not an army, but a crowd. Military discipline and obedience depend on uniformity, and this can only be attained when the outside and as far as possible the inside of the heads are made to conform to a common standard. This is most efficiently attained by the stiff hat, the helmet or the derby. When one looks down from a bridge on a street full of smooth round crowns, bobbing along like a school of porpoises or a herd of sheep, he wonders if the brains beneath must not in some degree be moulded to the same shape. The head changes the soft hat, but in the end the stiff hat has this reversed. Since the features remain movable for the first twenty-five years of a man's life, it would seem plausible that the man who shapes the hat-block has a hand in shaping the destinies of the nation.

In the country each house has a certain individuality. It may, for example, be picturesquely ugly, unpicturesquely ugly or plain. But in the city a man has little to go by in finding his home except the number, and the stranger finds it hard to remember that. His homing instinct has to be guided mostly by whether his apartment is to be had with a high stoop, and how far it is from a lamp post, and he gets off the car at the proper crossroad by noticing whether there are three saloons and a drug store or three saloons and a grocery. To the newcomer numbers are mere numbers, differing only in magnitude and sequence; but to the city dweller they bear esoteric connotations, and Fourth Avenue sounds to him quite different from Fifth Avenue. Nineveh was one of the largest of ancient cities, and in it, according to divine authority, there were six score thousand persons that could not discern between their right hand and their left hand, but probably even these knew the difference, socially and financially, between the East side and the West side of that city.

As long as a man can whistle he can call his soul his own, but when he can no longer indulge in that cheering amusement, except after dark on a side street and using the soft pedal, he begins to doubt whether in a city a man has a soul of his own. He is assured by biological sociologists that society is an organism and he hears of "municipal righteousness" and "civic duties," so it must be there is a soul of the city, and his own is not destroyed, but in some way merged into this syndicate soul. But this conception, like pantheism, is rather difficult to realize at first, and the green countryman asks himself what it profits a man to lose his own soul to gain an individual three-millionth interest in a "civic consciousness." —New York Independent.

## On Sitting with Crossed Legs.

There is one thing to which I would like to call the attention of the readers of this page, and especially the feminine portion of them. That is the habit which is so prevalent of crossing one knee over the other when sitting down. Let me give you the medical point of view if I can do so. The back of the knee as well as the front of the elbow and wrist, the groin and the armpit contain important nerves and blood vessels which are not as well protected as are similar structures in other parts

of the body. This space behind the knee, bounded by the tendons of the flexor muscles and the heads of the great calf muscles, is called the popliteal space and contains two large nerves, the external and the internal popliteal nerves, which are the divisions of the great sciatic, together with the large popliteal artery and its veins which carry the blood to and from the leg. Besides these are numerous branches which supply the joint, and also a number of small lymphatic glands. These structures are beneath the skin embedded in fat and connective tissue, and the pulse of the artery can very often be felt, while the nerves the internal can be made out just inside the external tendon.

Now, it is the pressure upon these vessels and nerves that often gives rise to serious trouble. Often the limb will, as we say, "fall asleep," or become numb, and the foot is seen to twitch. This means that the nerves are compressed, and consequently the artery constricted. If the twitching of the foot be closely watched, it will be seen that it beats in time with the pulse, which means that besides the hydrostatic pressure in the blood vessels, the heart is overcoming to a certain degree the weight of the leg, and the walls of the compressed artery are strained. The veins, too, are constricted and our feet big and swollen and the superficial veins of the leg often stand out in black lines.

A compressed nerve, if long subjected to conditions, is bound to rebel. Sciatica, ascending paralysis, chronic numbness, cramps or lameness are a result. Constrict an artery or a vein in any part of the body and you must pay the result. Thrombosis, aneurism or a morbid dilation of the vessel, improper venous return and varicose veins are some of the ills which we can all avoid by not forming this habit. There are still other evils caused by crossing the legs, while sitting down, but I think I have said enough. I may have left out important explanations, but I have done my best.—Star of Hope.

## Garments of Reindeer Wool.

From their herds of reindeer the Laplanders in Northern Europe take the woolly hair and make from it blankets, which are remarkable for their excellent qualities of resisting moisture and cold. Of these blankets the United States Consul at Frankfurt, Germany, has this to say:

"A close examination of the hair of the reindeer furnishes an explanation of its peculiar value. The hair does not have a hollow space inside for its whole length, but is divided, or partitioned off, into exceedingly numerous cells, like water-tight compartments. These are filled with condensed air, and their walls are so elastic and at the same time of such strong resistance that they are not broken up, either during the process of manufacture or by swelling when wet. The cells expand in water, and thus it happens that a man clad in garments made of reindeer wool does not sink in water, because he is buoyed up by means of the air contained in the hundreds of thousands of hair cells. In the markets and stores of Norway, Sweden and Russia garments and blankets of reindeer wool are to be had at lower prices than other fabrics. In Vienna there is a factory which manufactures garments of reindeer wool, especially bathing costumes. For persons unable to swim the possession of such garments is of great value. It is possible that they may be utilized in learning how to swim. Recently successful trials have been made in Paris in this line. In England attention has been directed to this peculiar property of reindeer wool, and it is proposed to take up its manufacture and possibly to improve it." —Fibre and Fabric.

## Most Persons Right-Footed.

"Did you ever notice that people are right-footed?" asked the proprietor of a shoe store. "Watch my clerks, and you will see that invariably customers will put out their right foot when going to be fitted. Now watch that corpulent woman going to sit down over there."

The woman with great weight of body took a seat, lifted her curtain of black veiling, and as the clerk approached her she poked her right foot from beneath an expanse of skirts.

"It's always the case and I don't believe I ever knew it to fail. The shoe manufacturers evidently are wise to this fact, as in the cartoon the right shoe is always packed on top. Once I had a lot of shoes come in with the left shoe on top, and it caused me such annoyance that I wrote to the manufacturer, calling his attention to the matter so that it wouldn't happen again. The majority of people are right-handed, yet a left-handed person has the right-foot habit. The right hand is larger than the left, as it is used more, and consequently develops the muscles to a greater extent. On the other hand, the left foot is larger than the right in most persons. The difference is so slight that we seldom have trouble in fitting shoes, however. It is the left foot that wears out before the right, and probably for this reason." —Shoe Retailer.

## Domestic Hints.

## PRESSED CHICKEN.

Use the meat from half a boiled chicken; chop very fine and mix it with four skinned sausages; this should be chopped to a paste. Grate enough breadcrumbs to make equal bulk with the chicken meat and have the sausage about equal also; that is, a third of each. Mix well and add pepper, salt and lemon juice to taste, with a pinch of grated nutmeg. Cover the chicken pieces with boiling water, add three cloves, half a dozen allspice and a bit of garlic; boil about half an hour, take some of it to moisten the paste, then add three well-beaten eggs. A square tin mould with straight sides should be used; line the sides and bottom with strips of salt pork, covering every inch; pour in the paste, put more pork slices on top, tie a buttered paper over top and bake about an hour in a moderate oven. Set aside to cool, turn out, remove the slices of pork and serve the loaf on a bed of jelly. It may also, after cooked and cool, be moulded in jelly and turned out, or it may be served plain.

## MACARONI.

Good macaroni should be cream colored and when broken should not split. After boiling in salted water the pieces should be drained and under a running cold water over it to prevent the pieces sticking together. In scalloping put a layer of macaroni in the buttered pudding dish, then one of grated cheese and one of white sauce, salting and peppering each layer of macaroni and cheese. Repeat until the dish is full, then cover with a teaspoonful of breadcrumbs stirred in a teaspoonful of melted butter. Allow half the amount of grated cheese that you have of macaroni.

## TOASTED COD.

Secure the fattest, best cured of dry codfish; strip and freshen in warm water. Let it soak a day and a night, changing the water once or twice, according to the degree of salt it contains. When fresh enough to be pleasant to the taste set it on the stove and let the water come gradually to the boiling point. (Never boil cod that has been previously salted and dried. That makes it hard and will not have the soft white tint as when treated thus). Place in bread toaster when drained, and toast a delicious brown over the live coals. While still hot have

ready a gravy of sweet cream and butter, seasoned with pepper and a pinch of salt, until the fish is decidedly salt still. Place in covered dish for table and pour over it the gravy. If cream be not obtainable a gravy almost equal to it is made by rubbing two tablespoonsful flour smooth in half a cup of cold water, pouring it in a saucepan over fire, and adding half cup boiling water. Cook slowly, stirring constantly, then add butter size of an egg and cup of hot milk or cream. Season.—What to Eat.

## SALAD A LA MACEDONNE.

Cut two carrots, two potatoes and two parsnips into small pieces and cook in salted water till tender. Take them out, drain, and when cold add to them an equal quantity of cooked beets, and celery cut in small bits. Put into a salad bowl, sprinkle over all some French peas, cook with myonnaise, garnish with sliced gherkins, and serve.

## PRUNE JELLY.

One pound of prunes, one-half cup of sugar, one-half box of gelatin, one pint of cold water, one-half pint of boiling water. Wash the prunes, cover them with water and soak them over night. Next morning bring to a boiling point. Cover the gelatin with cold water, soak for half an hour and add it with the sugar to the fruit. With a colander, pour the juice into a saucepan and take out the seeds or press through a colander. Turn the gelatin mixture into a mould and stand aside for three or four hours to harden. Serve with plain or whipped cream.

## CITRON CHEESECAKE.

Boil near a quart of cream; when cold, add the yolks of four eggs well beaten; boil this to a thick cream and beat two dozen almonds, about half a dozen bitter; beat them with a little rose-water; put all together, with three or four Naples biscuits, some citron shred fine; sugar to taste; puff-paste.

## Hints to Housekeepers.

A boy's room at school was prettily furnished at small cost, and very little trouble. The room was hardly as large as the ordinary hall bedroom. A good Delft blue figured paper was on the walls, the narrow bed was white iron, and dresser, writing table and two chairs quite filled the apartment. Ruffled white dimity curtains were put up at the one window, and a white linen spread over the dresser top. Two blue Wilton strips served as rugs, one long one over the bed and a shorter one in front of the writing table. A white enameled shelf held books, and the walls were hung with favorite pictures, good print reproductions of the boy's favorites, home photographs, and portraits of special heroes, of whom the boy had many, all pictures having gold paper mats and gold passe-partouts. Gradually the boy's treasures of the occupant's collecting found their way in the room, flags, photographs, branches with birds' nests, and other wood trophies, but so admirable was the original setting that nothing jarred.

The old-fashioned pinafore of childhood has been adapted for modern grown-up use in a very smart and convenient form. The modern pinafore is of Japanese silk cut in one piece, with a lace yoke and some gathers. It is intended to protect a more elaborate gown, and can be drawn in with a sash if desired. It perfectly serves the purpose of a pinafore without imparting the appearance of domesticity.

A Remedy for Sprains.—Take of olive oil two ounces, of camphor, rubbed well with a little oil, and then added to the whole, one drachm. Very little of this should be used at a time, and it should be gently rubbed on the sprained part before the fire.

Many fine carpets are prematurely worn out by malicious sweeping. Before sweeping an expensive carpet the floor should be thickly strewn with tea leaves, which attract the dust. Tea leaves may be used also with advantage upon rugs and short-piled carpets. In sweeping thick-piled floor coverings, such as Axminster Turkish carpets, the brush should always brush the way of the pile. This simple precaution will keep the carpet for years, while with careless sweeping the dust will enter the carpet and soon soil it.—Cooking Club.

To restore color to silk, taken out by acid, use sal volatile or hartshorn. It may be dropped on the silk; spot, without doing any injury to the silk.

Cane or wicker furniture is by far the best for sleeping rooms. It is light and easily cleaned, and is just as comfortable as the heavy, dirt-collecting, disease-breeding, stuffed variety; in fact, more comfortable, and infinitely safer and more healthy. Kugs, if not discolored altogether, should be cleaned often and thoroughly. Of course, one likes to have one's room decorated with pretty things, but let it always be in moderation. A room jammed full of things, no matter how ornamental they may be, becomes stuffy and tiresome.

White lace handkerchiefs make charming shades for candlestick lamps. The tiny centre of cambric must be cut out to make a place to stick the lamp chimney through.

The delicatessen and bakery charlotte russe is a delusion and a snare, and yet the average fastidious housewife has been deceived by any other kind. With the honest strawberry shortcake, it has gone where the old moons go. Yet charlottes are easy to make, and are healthful and delicious. Line a round or oblong dish with lady-fingers, split and trimmed to fit closely together. Fill with sponge cake may also be used. Whip cream very stiff, sweeten and flavor and pour in the mixture. Set aside to harden, and unmould carefully at the last moment. It is a saving of patience, and sometimes of desserts, to buy moulds that open at one side with a hinge.

One or two ballgowns, or Italian silk blouses, are a good investment in a household. They are inexpensive, and often very pretty in color and design. They are used for couch covers, and are decidedly convenient for extra bed coverings on cold nights. Light as these blouses are they are remarkably warm, and are said to be especially comfortable for persons subject to rheumatic attacks.

## Fashion Notes.

"The mohairs are increasingly popular. Now there is a fad for a rather heavy quality of mohair in stripes, and in green and blue plaids. These make handsome shirt-waist suits. For general utility there is no better material, and so many varieties are offered this year that no woman need fear looking like her neighbors. The softest and most comfortable are the white and the navy blue, and the striped and the plaid are worn as well as for handsome gown."

"Silk shirt-waist suits are prettily trimmed with Oriental embroidery bands, which are now very easily purchased. A navy blue pongee is made with a plaited waist and skirt, the former trimmed down the front and on the shoulders with blue-and-white embroidery, with a touch of red. The belt is especially good. It is wide, and is made of the embroidery and a scalloped edge of dark blue silk cloth. Leather straps and gold harness buckles close the belt."

"This belt, with a stock to match, made of Bulgarian linen embroidery, was seen at an exclusive shop. It is made of one color of leather to match suits, and is decidedly effective."

"A charming gown of navy blue taffeta has a triple skirt, the lower one graduated, and the upper one having a ripple back. Each of the three ruffles that form the skirt is trimmed with a blue silk braided mixed with a white and gold. The waist is a sort of a Russian blouse, and opens over a vest of plaited white batiste. The sleeves are full blue-plaids, and are very short, reaching scarcely to the elbows. Below them show bishop sleeves of batiste, with two lace frills falling over the hands. This is a plain model for a taffeta. Nearly all of these gowns are trimmed with very full flounces, ruffles or frills to which the material is well adapted."

bands, raised and padded embroideries, and heavy lace. The touch of color is strongly recommended, especially when the linen is one of the natural tones or gray, colors which are trying to the prettiest and freshest complexions. Some of the linens and crasses are as open meshed as to be practically transparent. These are effectively combined with heavy laces, dyed to match, or with linen braids and fringes. All these suits must be kept as simple as possible, that is, apparently simple, for any amount of work may go on them if the plain outlines are preserved."

"A lovely brown taffeta seen at an opening this week was made with a gathered skirt with three wide ruffles set at equal distances, the middle one at the knees. The bolero which opened over a blouse, was embroidered all over in a cut-work pattern. There were round sleeve caps of the embroidery, under which the bell-shaped sleeves fell to the elbow. The blouse had a waterfall of lace down the front with a bow of black velvet ribbon at the throat and near the belt. The sleeves were very full, and were tied with black velvet ribbon at the wrist."

"Near by in the same room, was a simple gown of champagne-colored chiffon voile, all the prettier because of its elaborately built neighbors. This gown had a lingerie yoke of lace and batiste embroidery, pointed in front and on the shoulders. The voile blouse was tucked across, the tucks, of course, extending to the sleeves. Each tuck was trimmed with a narrow edging of fine Valenciennes lace. The skirt was striped in groups, and had five tucks above the hem, each lace-edged like those on the waist. The cuffs matched the yoke, and there was a crush girde of silk the exact shade of the voile."

"The lingerie waists are beginning to be shown, and these are more elaborate, more intricate of design and more beautiful than ever. They could not very well be much more expensive than they were last year, the prices then running as high as \$150. Some of the finest of the new waists have shaped yokes made of very narrow Valenciennes lace fringed together. Often the yoke is made more expensive by introducing lace. An attempt will be made to introduce the collarless blouse. They are cool, but not many faces can stand them."

"For Exposition wear Eton suits of crash and rough surface linens are being made up. They look remarkably trim and stylish, as well as cool and comfortable. Worn with a white silk blouse, or with a lingerie waist, one would look very well and very sensibly dressed in such a gown."

"A striking gown was made of one of the new materials hard to tell whether silk or wool. At any rate it was light and rather wry, and was a black and white check, with embroidered dots of salmon pink outlined with white. The skirt was shirred around the waist and had a very high flounce, the top of which was cut in scallops, with a piping of salmon pink taffeta. This flounce had the fullness provided by little groups of shirring set about two inches apart. The waist had a yoke of Irish lace over pink, a vest effect in front with small lace revers, low down. These and the rest of the waist were trimmed with a braid in which the salmon pink, white and black were mingled. The elbow sleeves were finished with wide lace flounces tied at the wrist with white ribbon spotted with black and edged with pink. This same beautiful ribbon formed the girde."

"White gowns, it is said, will not be worn to any great extent, the blue, green, mauve and pink linens promising to overshadow last summer's white. No color is more fashionable at the moment than leaf green. One sees it in cottons, linens, voiles, silks, and, perhaps most attractive of all, pongee. The new taffeta is only in green."

"It is hinted that in Paris there will be worn more pale blue, pink and maize lingerie waists than white ones. This is probably an exaggeration, for nothing ever seriously interferes with the vogue of thin white for separate waists. Besides, the decree of one-color suits is still in effect, white waists being allowed as an alternative blouse. The coat suit will be much worn this spring, and blouses of silk matching the suit in colors will be just as necessary as they were last fall. On warm days thinest white blouses will be substituted. The colored lingerie waists are, nevertheless, beautiful garments, and are often very becoming. They are made with a great deal of white lace, white fagoting, and fancy stitches, and must be as airy and delicate as possible. Incidentally, they are extremely high priced.—N. Y. Evening Post.

## The World Beautiful.

Lillian Whiting, in Boston Budget.

"Our friendships hurry to short and poor conclusions, because we have made them a texture of wine and dreams, instead of the tough fibre of the human heart."—Emerson.

Between friendship and friendly acquaintance there is a wide gulf fixed. The latter may—and really should—include all people one meets and knows, for a friendly attitude can be held toward the incidental chance acquaintance of the moment as well as toward the acquaintance of long years and frequently recurring meetings. Acquaintance is the inner court and friendship is the outer. The former includes the majority, the latter the minority. The acquaintance is inevitable, the friend is chosen. The attitude toward the acquaintance is that of a rational and reasonable recognition of his right to fair and just estimation, and of one's own moral duty, so far as in him lies, of living in love and peace with all men; but the attitude to the friend is a relation of spirit to spirit; it is discovered and not made; it is pre-existent; it is the result of some mysterious relation, some pre-established harmony of thought and aspiration and spiritual quality which is as fixed, as unalterable as that of the orbit of the stars in their courses. It is, indeed, a divine, not a mere human relation, and being divine, it must exist by its own code of laws. Friendship, indeed, is the sacramental relation and one to be held in unalterable faith and unchanging sweetness of spirit. Its basis is spiritual recognition.

"Your unanointed eyes shall fall On him who fills my soul with light. You do not see my friend at all; You see what hides him from your sight."

But apart from the joy of recognition, or the charm of intercourse, lie, also, the duties, the obligations, of friendship. It is an ideal relation which has to struggle against wind and tide, so to speak, in a world whose forces are not yet developed into ideal form and quality. The relations between two friends are not exclusively their own, but are always more or less entangled with a great many other people and with unlooked-for events and circumstances that have a great deal to do with personal feelings and personal relations. Character, itself, is not an absolute and a fixed thing; it may constantly grow finer and stronger; it may deteriorate, and thus, to keep the upward and onward way into the nobler life is the constant responsibility of every one. But beside character, temperament is a faculty to be reckoned with, and temperament is variable in its response. It is like a musical instrument which, under the hands of a Paderewski, or a Perabo, gives forth divine harmonies; and under the unskilled touch, gives discord. To take another person's estimate of one's friend is to involve a subtle and sacred relation in clumsy and paralyzing entanglements. It is not what a Chloerich grand can offer under the unmusical touch, but what it offers under the touch of Ernst Perabo,—for instance,—that determines the perfection of the piano. The same principle applies to human beings, and when St. Paul enjoins on us: "So far as in you lies, live in peace with all men" he indicates that which is the fine art of living. To so live as to evolve from others the higher harmonies; to keep the social atmosphere

serene and sweet, is indeed the finest of all the fine arts.

Now friendship in any sense that is worth the name, is not an affair of "wine and dreams," but is, indeed, the "tough fibre" of the heart. A friendship that is worth the name keeps ever toward the object of our Lord, gives to every man, not his faults and errors; and to withhold friendship, because one discovers some of his unrecognized fault in his friend, is to prove the friendship lacking in the divine quality of that which Christ gives to humanity. One does not condone the error, but he continues to love his friend. If his friendship is of the divine order, it will hope and bear and endure all things. "How can you care for so-and-so," one will remark, "when you know that wrong that he committed?" You do know that it was a lapse from which you can rise again if she has that stimulus and encouragement and love. And one's friendship is for the soul, and it is thereby intimate in its hope, its belief, its tenderness and its trust in a finer future.

"I see the feet that faint would climb, You, but the steps that turn astray; I see the soul, unarméd, sublime, You, but the earnest and the day."

Another problem—which is the tragedy of friendships—arises in the misunderstandings and alienations that sometimes sweep down like a thunderbolt out of clear skies, and defy all attempts to analyze or understand their cause. But the cure for these lies not in resentment, or in recrimination, but in patience and silence and affection. If one has made all reasonable effort to understand and all explanation is denied, let him not turn away in anger even at what may seem unjust. Let him take his sorrow to the Divine Comforter whose aid faileth never. Let him endeavor to be only helpful to humanity, more patient, more sympathetic because of his own experience in sorrow. And so shall personal loss and pain transmute themselves into the nobler energies and aid in enabling him to gain a higher plane of life, and thus his friendships shall not "hurry to short and poor conclusions," but shall incorporate themselves into the finer issues of life and find their resurrection in some fair future in the realm where we shall know even as we are known.

The Brunswick, Boston.

## Gems of Thought.

"You cannot prove that you are good by proving that somebody else is bad."

"What He suffered proved Him to be of our kin; what He achieved showed how much He differed from all who had been before Him. His humanity and the sufferings needed to test its sinlessness were His, but the fruits of His victory are ours."—Andrew M. Fairbank.

"If our life were indeed bid with Christ in God, if we could realize anything of the height and depth of that mysterious life, we should be kept in peace, even though the sea should roar and all its follies, Maria Harter.

"Take all the unhappy homes in this city, all the disappointed parents, all the discontented children, in all their collisions and mutually inflicting distress. How real and terrible this anxiety is! It is an epitome of the wrong and woe of the whole world. It comes from the domination of heartless selfishness. Christ proposes another master for all these homes—the supremacy of love.—George A. Gordon.

"Men are tattooed with their special beliefs like so many South Sea Islanders; but a real human heart, with divine love in it, beats with the same glow under all the patterns of all earth's thousand tribes.—O. W. Holmes.

"Be a sound Christian, but not a Christian sound asleep."

"Don't be for getting the good things of this world, and forgetting those of the next world."

"Let a man learn that everything in nature goes by law, and not by luck, and that what he sows he reaps.—Emerson.

"To be famous depends upon some fortuitous, to be rich depends upon birth or luck; to be intellectually eminent may depend on the appointment of Providence; but to be a man, in the sense of substance, depends solely on one's own noble ambition and determination to live in contact with God's open atmosphere of truth and right with which all true manliness is inspired and fed.—T. S. King.

"I know that to man hath a velvet cross, but the cross is made of that which God will have it. But verily, howbeit it be not allowed to wear a cross at



## Poetry.

## A TREE IN THE PARK.

A gracefully symmetrical and sylph-like tree  
standing apart  
Between the pathways, with its springtime  
ecstasy  
Captures my heart.  
With delicately shimmering foliage it lights the  
scene.  
Yet is each leaf  
Not separate. All are merged by distance in a  
Tapering sheaf.  
The tree is slender; black the ebon trunk takes  
shape  
Into each limb  
Inches which, less distinctly black, more fairy-  
like  
Finally disappear in leaves. The cone of  
green  
Capping the trunk  
Just above the apex of a roof but faintly seen  
standing beyond.  
The sun is warm and bright, the sky a cloudless  
blue.  
I, for my part,  
Enjoy such kindness. The tree, rejoicing too,  
Opens its heart  
To me and sky—a maiden heart devoid of fear  
Opening to love.  
I think, "If I, within my own appointed sphere,  
Just where I move,  
As perfect were as is that slender graceful tree—  
Perfect for height,  
In color perfect, as in form—I should be  
Satisfied quite."  
REV. WILLIAM BISHOP GATES,  
West End Church House, New York City.

## OPPORTUNITY SPEAKS.

Yes,  
I am Opportunity;  
But say, young man,  
Don't wait for me  
To come to you;  
To win your crown,  
And work with head  
And heart and hands,  
As does the man  
Who understands  
That those who wait,  
Expecting some reward from fate,  
Or luck, to call it so,  
Sit always in the "way-back row."  
And yet  
You must not let  
Me get away when I show up.  
The golden cup  
Is not for him who stands,  
With folded hands,  
Expecting me  
To serve his inactivity.  
I serve the active mind  
The seeing eye,  
The ready hand  
That grasps me passing by,  
And takes from me  
The good old thing I've such a dear  
For every spirit  
Strong and bold.  
He does not wait  
On fate  
Who seizes me,  
For I am fortune,  
Luck, and fate,  
The corner-stone  
Of what is great  
In man's accomplishment.  
But I am none of these  
To him who does not seize;  
I must be caught.  
If any good is wrought  
Out of the treasures I possess.  
Oh, yes,  
I'm Opportunity;  
I'm golden, but  
I'm sometimes late,  
But do not wait  
For me;  
Work on,  
Watch on,  
Good hands, good heart,  
And some day you will see—  
Out of your effort rising,  
Opportunity.  
—William J. Lampton, in Success.

## A JAPANESE FAN.

Is it so warm in old Japan?  
Do flowers flaunt out such riot glare?  
Hugs that soft, golden mist so low?  
Ah, me, ah, me, to journey there!  
Inked out against the yellow glow  
One sharp peak rises, blackly bare;  
A stately swan steers up the sky—  
Ah, me, ah, me, to journey there!  
And see her as she furries her fan!  
Was ever lady half so fair?  
She beckons to me with her eyes—  
Ah, me, ah, me, to journey there!  
Were ever feet so dainty small?  
Was ever curled such shirring hair?  
Her hands are like curled lily buds—  
Ah, me, ah, me, to journey there!  
Fan-pictured, dead Japan, thy calm  
Fills us with West with dull despair!  
(The palm leaves still the sunlight through)  
Ah, me, ah, me, to journey there!  
—Josephine Daskam, in Scribner's.

## FAITH.

If Faith were given human form,  
Alive and warm,  
I think thy steady burning eyes,  
Where Love and Hope and Courage dwell,  
I think thy mouth, so sweet and wise,  
Would suit her well;  
For if not Faith thou art,  
Thou art Faith abiding in my heart.  
Hark! how the features to her will  
And made them pure, and glad, and still.  
—R. C. Macfie.

## QUIET WORK.

One lesson, Nature, let me learn of thee,  
One lesson which in every wind is blown,  
One lesson of two duties kept at one  
Though the loud world proclaim their enmity—  
(What! unsevered from tranquility!  
How, that in lasting fight outflows  
For outer schemes, accomplished in repose,  
Too great for haste, too high for rivalry!

While on earth a thousand discords ring,  
How still upsurge mingling with his toll,  
How glorious slays in silence pattering;  
How working, blinding still our vain turmoil,  
How that shall not fail, when man is gone.  
—Matthew Arnold.

## A FISHING.

Now is the time for the luring fly,  
Now is the time for the waters high,  
Now is the time for the Doctor and Montreal,  
Now is the time for the cast that a king may die.  
Along with a gaff and a clicking reel,  
Hark! boots and an empty creel,  
A bag of gut, a split bamboo,  
Bowler's luck and a fisherman's zeal.  
Over the hills at the rise of day,  
Through a sea of mist when the world is gray,  
Down to the river's bend,  
Where the shadows bloom and the ripples play.  
To halt the length of an afternoon,  
To reel in rings to a thrilling tune,  
To basket sags with the speckled trout,  
And wander home by an April moon.  
—Metropolitan Magazine.

For what we cannot do, God never asks;  
Beyond what we can bear, He never tries.  
In sweet fulfillment of the little tasks  
Which path we're taking for eternity.  
—London Sunday-School Times.

## Miscellaneous.

## Love Me, Love My Dog.

My name is Persephone, and I am said to resemble my mother, Pandora, who, as far as her  
pupples go, certainly holds the traditional gift  
box. For all my brothers and sisters are pri-  
vate, I myself don't go to show, because I am  
nervous and hate being stared at.  
I am proud of being the poodle, and a French  
dog into the bargain. 'Tis only jealousy that  
makes other dogs sneer at me, just as I have  
seen human canaille sneer—at a safe distance.  
My young mistress is the prettiest creature  
living. I used to think her one of the most sen-  
sible, but she got friendly with Mr. Roff, who  
was, and I thought her eyes were lost when  
she first said "I love you." I longed to tell him  
I thought of him, and wondered how he would  
look then.  
Phyllis had been getting very thick with this  
young man—whose laugh startled me almost out  
of my skin—when one day she fell from her  
bicycle.  
I was following her when the accident oc-  
curred, and Mr. Roff was riding by her side.  
Something he said made her color hot, then  
pedal down the coming hill with all her might.  
Suddenly she rode over a stone, swerved to  
one side, and before I could reach her fell to the  
ground with a heavy thud.  
I scampered to the spot and began to howl for  
help, while Mr. Roff jumped off his machine, as  
white as death, and stooped over her.  
"Be quiet, you!" he muttered, glaring at  
me, and I knew that if he could he would put  
the blame on me and say that I upset her.  
But of course, I paid no attention to him, but  
howled again, until at last some passerby came  
and fetched a cab and took her home.  
The house was very quiet for many days, and  
I felt wretched. Once she put her arms round my neck  
and wept over me. I suspected from that that  
she was getting short of handkerchiefs and took  
care to keep a good supply on hand. I do not like  
to have my neck curdled made all damp and untidy.  
I was very neglected. No one brushed me.  
At last I was summoned to my darling's room  
and crept in nervously. My heart was beating  
very loudly and my eyes were dim with tears of  
joy. Such a thin little hand patted my uncombed  
head, such a weak little kiss on my cheek. "Dear  
doggie, do you miss me very much?" Miss  
Phyllis asked. "Of course I did. And with her all my pet  
titbits, my little waifs, my scampers after balls. So I  
wagged my tail and smiled at her.  
Little by little she got better, and well enough  
she came to me and gave me a rub. I knew  
the colors well and always brought the one she  
said.  
But one morning my feelings received a shock.  
Phyllis had a letter and was very silly about it,  
kissing it as though it were a dog or two-legged  
being. Still I minded that less than if it had  
been Mr. Roff.  
"Oh, Phyllis, listen!" she whispered, as she  
combed my hair. "I am sure you will under-  
stand, you dear old thing! I've such a dear  
letter from him, and he wants my answer,  
Phoney—the answer I would not give the day I  
met with my accident."  
I dropped my ears and lowered my tail. By  
him I knew she meant Mr. Roff. But what an-  
swer did she glide to? I looked inquiringly  
into her gentle, blue eyes.  
She laughed and kissed me on the nose.  
"You dear old thing! I will read it to you,  
Phoney."  
And she pulled it from her pocket and read out  
a lot of rubbish that seemed quite unintelligible  
to me. But, then, I always thought Mr. Roff  
half an idiot, and wondered at Phyllis liking  
him. Then came a few words that made me sit  
up at once.  
"Let that poodle of yours be made use of for  
once. If it is to be 'yes' put on her a blue ribbon.  
If 'no' a yellow one. I shall call today, and  
if I see the color I long for on that black crea-  
ture's head I shall at once beard the lion and as-  
sert my rights."  
"Phoney, it shall be blue! Fetch blue, dar-  
ling," said Phyllis, with a joyful smile.  
And I walked slowly out of the room to the  
boudoir and found that I thought the blue ribbon  
back she laughed again.  
But I had laid my plans. Whatever this  
"yes" was to mean, Mr. Roff hoped to read it in  
the color of my ribbon. But I meant him to read  
"no." I would show him that a dog of my breed-  
ing could be something more than a mere crea-  
ture in his plot.  
I rolled over and scratched until the ribbon  
came off and lay on the ground. Then I trotted  
into the garden with it and buried it in my favorite  
corner, where I hide my best bones.  
I knew I was doing wrong, but Phyllis would  
not really mind, and I owed Mr. Roff a grudge  
or two.  
Often when my ribbon came off I used to take  
it to my friend the parlor maid and get her to put  
it on again. So I was, as I said, down from  
the boudoir with a yellow one in my mouth and  
met her at the foot of the stairs, she said with a  
laugh:  
"What, your fine bow off again, Phoney?  
What an untidy dog!"  
I wagged my tail and she tied it on. For civility  
lowers no one, and she is a nice girl. Then I sat  
down on the doormat to watch for Mr. Roff.  
At last the gate clicked and he came up the  
steps with a light spring. But as his eyes fell on  
me such a look of astonished despair crept into  
his face that my heart quaked within me and I  
hung my head.  
He stooped over me as though he could not be-  
lieve his eyes, and as I felt his warm breath on  
my face I rolled over on my back in terrified  
submission.  
"Silly brute," he murmured, "get up. Have  
you been stealing? Don't give yourself away  
like that, Phoney."  
He looked at me fixedly without saying any-  
thing. Then, stooping again, he took off my ribbon  
and hid it in his pocket.  
That night Phyllis was worse, and no one could  
understand why. And the next day she lay  
sleazy, looking out of her window with such dis-  
tressed eyes that I could not bear to look at her.  
And Mr. Roff did not come near the house,  
which proved that he was really meant goodby.  
If I had I could stand it no longer. Surely Mr.  
Roff could make things right again. I would go  
to him.  
So one afternoon I crept silently into the  
road. He did not live far off, and as fate would  
have it, he came across him outside his garden  
gate. He smiled when he saw me.  
"Why, Phoney! Come to see your friend," he  
exclaimed; "you're only just in time, my girl.  
I start tonight."  
I wagged my tail and opened my mouth. At  
his feet I laid the exiled blue ribbon. He  
stared at me in amazement. "Phoney, you're  
a brack! You're trying to tell me there's been  
some mistake. I'm coming back with you to  
make sure. Lead on, you imitation Mephis-  
topheles, and may the real one have you if I'm  
misleading you!"  
What a race that was! I felt myself really  
warming to him for understanding me so well.  
And, when we got to the house, I crept  
stealthily through the open door, enticing him  
up, until we stood like two thieves within the  
boudoir, where Phyllis lay on a couch by the  
window.  
As she turned her head to look at me her eyes  
fell upon me, and she crimsoned with delight.  
Then suddenly she became quite pale, and said  
in a cold voice:  
"Good evening, Mr. Roff."  
He stepped up to her, and held out the ribbon  
I had given him.  
"Phyllis," he asked, "is this the ribbon you  
put on Phoney that morning?"  
She stared from him to me. I crept beneath  
the couch and I kept my ears open.  
"Yes," she murmured. "But—"  
The words were never said, for with a sudden  
exclamation he threw himself on his knees by  
her side, and took her to his arms.—St. Louis  
Star.

There is no external politeness which has  
not a root in the nature of man. Forms of  
politeness, therefore, should never be inculcated  
on young persons without letting them under-  
stand the moral ground on which all such forms  
rest.—Goethe.

## Douth's Department.

## THE BEAR.

Grandma Gruff said a curious thing.  
"Boys may whistle, but girls must sing."  
That's the very thing I heard her say.  
To Kate, no longer than yesterday.  
"Boys may whistle," of course they may,  
If they pocket their lips the proper way;  
But for the life of me I can't see  
Why Kate can't whistle as well as me.  
"Boys may whistle, but girls must sing."  
Now I call that a curious thing.  
If boys can whistle, can't girls too?  
It's the easiest thing in the world to do.  
Soft the boys can whistle and do it well,  
Why cannot girls—will somebody tell?  
Why can't they do what a boy can do?  
That's the thing I should like to know.  
I went to father and asked him why  
Girls couldn't whistle as well as I.  
And he said, "The reason that girls must sing  
is because a girl's a sing-sing thing."  
And grandma laughed till I knew she'd ache  
When I said I thought it all a mistake.  
"Never," she said, "I heard her say,  
"They will make you whistle some day!"  
—New Orleans Picayune.

## The Whalebone Whales.

Another group of whales have no teeth,  
but the mouth is provided with several hundred  
closely packed, horny, flexible plates or slabs  
slung from the roof of the mouth and hang-  
ing on each side like a curtain, so that when the  
mouth is opened as wide as possible their ends  
are received within the lower jaw. These  
plates, which in some whales are nine or ten  
feet long, have pointed, frayed extremities,  
and are lined with long, stiff hair. This pecu-  
liar substance in the mouth of whales, which is  
called baleen, is now the most valuable prod-  
uct yielded by these creatures; and to obtain it  
thousands of men brave the dangers of the seas,  
of the Arctic ice, and of the chase, killing the  
whales by burning harpoons and shooting explo-  
sive bullets into them from a small boat.  
Among the various kinds of whalebone whales  
is the right whale, which reaches a length of  
sixty feet and yields two hundred barrels of oil  
and a thousand pounds of long, valuable baleen;  
the humpback, which is sometimes seventy-  
five feet long, but has short bone and little oil;  
finback and sulphur-bottom whales, of large size  
but comparatively little value; and the bow-  
head, Greenland, or polar whale. The last  
is at home among the ice fields, and is now  
the most sought of all the whales on account  
of the excellent quality and large quantity of its  
baleen. The maximum length is sixty-five feet,  
and its bulk is immense; the huge head rep-  
resents a third of the length, and the tail is sixteen  
to twenty feet across. The largest sulphur bot-  
tom produce several thousand pounds of bone, worth  
\$5 to a pound, and six thousand or more gal-  
lons of oil, worth forty cents a gallon.  
In feeding, the baleen whales drop the lower  
jaw, and swim forward rapidly, and all kinds of  
small floating animals—fish, shrimp, and mol-  
lusks—pass into the yawning mouth. When the  
lower jaw is closed, the plates of baleen are  
forced forward and backward, the water rushes  
through the sieve formed by the hairs, the food is  
left behind, and is swallowed by the aid of the  
tongue.  
Some of the baleen whales are said to attain a  
length of more than a hundred feet, and there  
are authentic records of examples measuring be-  
tween ninety and one hundred feet. The largest  
species of whale, and therefore the largest of all  
living animals, and the largest creature that ever  
existed, so far as we know, is the sulphur-bot-  
tom whale of the Pacific coast. One of these was  
ninety-five feet long and thirty-nine feet in cir-  
cumference, and weighed by calculation nearly  
three hundred thousand pounds.  
The whale is further distinguished by being  
the swiftest of all whales, and one of the most  
difficult to approach; it glides over the sur-  
face with great rapidity, often displaying its  
length; and when it respire the immense  
volume of air which it throws up, a great  
height is evidence of its colossal proportions.—  
St. Nicholas.

## Moving Pictures Amaze Indians.

Burton Holmes, the lecturer, visited the home  
of the Mok Indians in Arizona to witness the  
weird snake dance, which those savages have  
practiced at intervals for centuries. While near  
the home of the Mok he set up his moving pic-  
ture machine and made a film showing Apache  
Indians and cowboys in horse races and in feats  
of daring white horse action.  
The film was developed and proved to be ex-  
cellent. A year later Mr. Holmes visited the  
same region again, and one night gave an exhibi-  
tion for the benefit of the natives.  
The Indians observed the pictures which were  
shown on the side of a store building, with still-  
ness and no comment until the moving picture ma-  
chine was started and the film made in the neigh-  
borhood a year before was thrown on the screen.  
Then there was almost a riot, said Mr.  
Holmes in telling of the affair. "Several of the  
Indians who had taken part in the races the year  
before had died, and when they were shown on  
the screen, riding for dear life, their friends were  
amazed. The dead had been brought to life. It  
was astounding."  
The Indians gazed at the picture, then looked  
at each other as if uncertain that they saw  
what they saw. Then they began talking ex-  
citedly, pointing at the moving images of those  
who were dead. It did not strike the savages  
as unusual and new, but as a thing which they  
saw and seem to be moving, but with dead  
men it was different.  
"When the film had all gone through the ma-  
chine the Indians hastened to the store to ex-  
amine the white cloth on which the pictures had been  
shown. They fingered it nervously, raised it to  
look behind it, held it up to look through it in  
vain endeavor to find the solution to what was to  
them a mystery. They paid no attention at all  
to the machine that had thrown up the picture.  
A lot of magic, to them, was in the cloth."

## Bobby.

Bobby had been staring at his grandfather for  
a long time.  
"Well, 'Bob,' exclaimed his grandfather at  
last, "what do you think of my face?"  
"It's an awfully nice face, granddaddy," said  
Bobby, "but why don't you have it ironed?"  
—Pittsburgh.

## Sowed Her Mother's Liver Pills.

There is a woman in Phoenix, who has the cor-  
rect idea, all right, but whether it will work out  
remains for the future to disclose.  
Recently her husband bought a small ranch,  
and with him she has been much interested in  
planning improvements, especially the grow-  
ing line, with which to adorn the place.  
The other day beds were prepared for sweet  
peas, and the lady of the house was busily en-  
gaged in sowing seeds and carrying the little  
pockets out of doors, where their contents  
were transferred to the beds in regular order.  
As each variety was planted the name was  
placed on a small marker, as is the custom with  
gardeners.  
In a particularly choice location the contents  
of a packet were laboriously dropped, one by  
one, until the row was filled with the seeds.  
The lady then smoothed over it. When the lady  
picked up the packet she discovered that she  
had sowed her mother's liver pills.  
—Pittsburgh.

## Bruin in Spring.

"Any one would naturally suppose," said a  
Pike County man, "that after lying holed up  
for several months, and then coming out for  
four or five months, as they certainly have done  
this winter, bears would come out in the spring  
lean and scraggly, but that is just contrary to the  
facts in the case.  
"The bear when he seeks winter quarters is  
perhaps the fattest thing on four legs. He  
doesn't swell up with fat, like a pig, but seems to  
go to fat all over.  
"When he starts in to fatten up for his winter  
retirement he can eat a bushel of chestnuts  
at a time with ease. As he gets fat his stomach

gets smaller and smaller, until, when he is in  
proper condition for wintering over, it hasn't  
capacity enough to hold a double handful of food.  
He sticks right by the bear all winter  
and keeps him warm. If you are after a bear  
for his grease, you kill your game either just be-  
fore he goes into his hole in the fall or right after  
he comes out in the spring.  
In a week after a bear comes out he will be  
as lean as a razor-blade, although he has been  
eating everything eatable he could lay his paws  
on since he woke up, and that's a good deal.  
A bear, after thus losing his flesh in the spring,  
will keep lean until he begins to fatten up again  
in the winter, and then he rolls up the fat as  
before.  
"It seems odd that a bear should keep fat for  
months without having eaten a morsel of any-  
thing, and lose his flesh—or grease, rather—as  
soon as he begins to take in food, but that's the  
way the bear is made, and I don't see how we  
are going to help it.  
"And, by the way, the bears are out in Pike  
County. Three are reported as having been  
killed already in the region south of the High  
Road, and taken to the south of the road.  
Two of the bears were with one of the bears  
killed, and started to death for want of her."—N.  
Y. Sun.

—Texas was admitted to the Union in 1845.  
—Few of the citizens and residents of Top-  
sheld, Mass., are proud of the fact, but the ances-  
tral home of the Smiths of the Mormon Church is  
still standing here. The structure was built in  
1890, is of the ancient style of architecture, one  
and a half stories high, almost square in shape  
and shingled all over, with a high chimney pier-  
cing the centre of the ridge pole. In this house  
children, grandfathers, and the founder of the  
Mormon religion, and his son Joseph, the first  
convert to the faith and its first presiding patri-  
arch. The Smiths can trace their ancestry to the  
early Colonial settlers. Robert Smith, the first  
of the line in this country, arrived in 1638, married  
Mary French and settled in Rowley, near New-  
buryport. He purchased 200 acres of land, and  
was for many years known as a modest, un-  
assuming and honest man, always willing to aid  
his neighbors.  
—Old "Farmer George" (George III.), who sat  
on the throne of Great Britain and Ireland for  
some sixty years, was well represented by the  
last surviving grandson, George, Duke of  
Cambridge, who died in London recently. Ex-  
cept that the duke was not, even in imagination,  
a farmer, as his grandfather was, the two men  
had much in common. They were both stub-  
born, if not pigheaded, and their pertinacity,  
always exerted with the best intentions, in the  
long run proved bad for them and their country.  
The duke's parallel, however, "Farmer George"  
was king, his grandson was never in the near  
line of succession.  
—Early in 1849, when California gold was  
brought to the mint at Philadelphia, and was  
pronounced genuine, a great excitement broke  
out in all parts of the country. People flocked  
to California. They went by steamer to the  
Isthmus of Panama, crossed it, and sailed up the  
coast to San Francisco, they bought sailing ves-  
sels and went around Cape Horn, they traveled  
overland across the plains. The fever was  
spread by the news, but spread to Europe.  
Within two years there were one hundred  
thousand persons in California, and San  
Francisco was a rapidly growing city of twenty  
thousand inhabitants.

## Curious Facts.

—A Connecticut firm manufactures sacred  
"carabai" for the Egyptian tourist trade. The  
little charms are carved and even chipped by ma-  
chine, and are colored in bright colors. They are  
shipped in casks to the Moslem dealers at Cairo.  
The Arabian guides are the chief buyers, many of  
them being adepts at "salting" the sands at the  
base of the Pyramids, or about the sacred  
temples, where they artfully discover these carabai  
before the very eyes of the Yankee tourist, and  
sell him for an American dollar an article man-  
ufactured at a cost of less than a cent per-  
haps within a stone's throw of his own home.  
—Ireland produces 150 pounds of meat yearly  
per head of her population, which is three times  
greater than England's production per head.  
—The English statute mile was first defined  
in the thirty-fifth year of Queen Elizabeth. Be-  
fore that time it was put down at five thousand  
feet.  
—The Austrian Emperor is the greatest of  
royal sportsmen. Between 1856 and 1887 he killed  
1243 deer and 720 chamois, besides thousands of  
deer of other game.  
—A tree of ylang-ylang, which rivals star of  
roses as a perfume and is worth from \$40 to \$50  
per pound, is the product of a tree which grows  
in the Philippines.  
—An iron cable, which is claimed to be the  
largest in the world, has been finished at Leach-  
ester, Pa. It is more than half a mile long, and  
each link weighs ninety-three pounds.  
—England has twenty-eight railway tunnels  
of a mile or more in length.  
—Balliol, founded in the year 1262, is the oldest  
of Oxford colleges.  
—The great landmark in Montreal is the  
Cathedral of Notre Dame, which, next to the  
famous cathedral in the City of Mexico, is the  
largest church building in America, and has a  
seating capacity of twelve thousand. The church  
was built in 1828, and is noted for its magnificent  
interior of the bells of which, called "Le  
Gros Bourdon," is one of the largest suspended  
bells in the world, and weighs 24,780 pounds.  
—A pianist has to cultivate the eye as well as  
the finger to understand in one minute, the  
fingers make two thousand notes, there has been  
brain to understand all these signs, as well  
as direct all these movements. In playing Web-  
ber's "Moto Perpetuo" a pianist has to read 4541  
notes in less than four minutes, or about nine-  
teen notes per second. In the case of a pianist  
in quick music it seems that a player does not  
see every note singly, but in groups, probably a  
bar or more at a view.  
—The fence about the Fort Belknap Indian  
reservation in Montana, which is forty miles  
wide and sixty miles long, has been finished. It  
is the longest fence in the world, and has been  
taken years in building. The plan is to protect  
the flocks of herds of the Gros Ventres and  
Assiniboines from intrusion, as well as to keep  
them from straying.  
—With seventy-eight thousand postoffices  
within its borders, the United States leads all  
other powers of the world in this, as well as in  
most other lines. Germany comes next with  
45,623 offices, and Great Britain third with 22,400.  
—San Francisco holds the record of having  
one salmon for every twenty-two grown men of  
its population.  
—There are 150 pawnbrokers in England to  
each million inhabitants.  
—Though more populous than this country,  
the Russian Empire has but eight hundred news-  
papers. The number in this country is twenty-  
two thousand.  
—The United States produces three-fourths  
of the cotton of the world.  
—Newburyport has the oldest firebrecket in  
Essex County, dated 1781.  
—It is estimated that there are about 200,  
000 apple trees in the United States and that  
the average crop amounts to about 175,000,000  
bushels.  
—M. Maximilien Crapier, an inhabitant of  
Caix, France, who recently died in his ninetieth  
year, was the head of a family, which for patri-  
archal size beats all records in the world. Him-  
self the eldest of ten children, his mother at her  
death in 1880, at the age of ninety-four, could  
boast of 144 children, grandchildren and great-  
grandchildren. M. Crapier, during his lifetime,  
became an uncle or great-uncle no fewer than 283  
times.  
—Alexander Hamilton of New York was born  
in the West Indies in 1757. He was noted for his  
mental powers from an early age. He had hardly  
left college when he became aide-de-camp and  
trusted friend of Washington, and one of the

most brilliant of political writers. He was but  
thirty-two years of age when he was recognized  
as the ablest member of the Federal Convention,  
and wrote in the Federalist those papers on the  
Constitution which all lawyers have since taken  
as masterpieces. He was Washington's Secre-  
tary of the Treasury, and brought the country  
out of its money troubles. In 1804, he was shot  
and killed at Weehawken, N. J., in a duel in  
which Aaron Burr, then Vice-President, had  
forced upon him.  
Two years after the oil consumption of the  
world has exceeded the production. The stock  
of crude Pennsylvania petroleum above ground  
in December, 1900, was 13,174,717 barrels, while in  
December, 1902, the amount thus stored was only  
6,609,127 barrels. Pennsylvania has the greatest  
American oil field.

## Notes and Queries.

THE ORIGIN OF THE GRAIN.—"M. S.": By an  
English law enacted in 1205, it was provided that  
a silver penny, called a sterling, should equal in  
weight thirty-two wheat grains, well dried and  
cleaned, and that the weight of the coin should be  
evident that the grain of wheat was the  
prototype of the standard grain. The weight  
now known as the grain is, of course, copied  
from Governmental standards. In 1205 certain  
weights and measures were legalized in England,  
and in 1207 copies of these were furnished our  
Government, among them being the Troy pound  
equivalent to 5760 grains. The origin of the ounce  
commonly used for the scruple, dram and signa-  
does not seem to be known. It is not unlikely  
that they are entirely arbitrary.  
DIVISION OF TIME.—"Arthur": There are  
two kinds of time—clock or mean time and ap-  
parent or sun time. Clock time is always right,  
while sun time varies every day; the sun very  
seldom being on the meridian at twelve o'clock,  
and the day differing in length, owing to the elip-  
ticity of the Earth's orbit, etc., but a mean solar  
day, as recorded by clock time, is twenty-four  
hours long. An astronomical day begins at noon,  
twelve hours after the beginning of the civil day,  
and is counted from the first to the twenty-fourth  
hour, which commences at midnight, and is  
counted from the first to the twelfth hour.  
Nautical day is counted as a civil day, but com-  
mences, like an astronomical day, at noon. A  
calendar month varies from twenty-eight to  
thirty-one days. A mean lunar month is twenty-  
nine days, twelve hours and forty-four minutes,  
two seconds and a small fraction. A solar year,  
the transition from one vernal equinox to another,  
consists of 365.2424 solar days, or 365  
days, five hours, forty-eight minutes and 46.36  
seconds. A Julian year is 365 days; a Gregorian  
year, 365.2425 days. Every fourth year, or leap  
year, has 366 days.  
THE YALU RIVER.—"S. K.": It is a picture-  
esque stream, some three hundred miles in  
length, and is the dividing line between Corea  
and Manchuria on the northwest frontier. It is  
navigable by native craft as far as Shinkulung,  
but steamers are unable to proceed beyond An-  
tung, the port to which the Russians are now  
devoting considerable attention. Some miles  
below Antung, but situated on the same bank  
and in the same vicinity of the river, is the  
port of Tatungko, where, when the weather  
permits, cargoes for Antung are sometimes dis-  
charged. Tatungko, however, is difficult to ap-  
proach, and as a general rule steamers unload  
and receive their cargoes at Antung, a port of  
great prominence in the future.

ATMOSPHERE AND CLOUDS.—"Student":  
According to recent theories, the atmosphere  
surrounding the earth extends several hundred  
miles upward, instead of only sixty, as was for-  
merly thought. The real distance is estimated at  
five hundred miles by observing the descent of  
meteors through space. Clouds of feathery form  
extend ten miles overhead. They are highest  
in summer and lowest in winter, sometimes de-  
scending to within half a mile of the earth.  
Though they seem to move slowly, they travel  
really at the rate of sixty to ninety miles an  
hour. The thunder clouds of the summer sea-  
son are sometimes seven or eight miles tall from  
base to summit. The aeronaut Gishler was  
carried to the height of seven miles in a balloon  
in 1892. This is the greatest height ever reached  
by man. Six miles up the rarified air would pro-  
duce unconsciousness, unless oxygen was sup-  
plied artificially.

ENGLISH WORDS.—"L. B.": No one can say  
how many words there are in the English lan-  
guage, but there are so many words of doubt-  
ful standing. The Century Dictionary contains  
about 225,000 words, and the new edition of the  
Standard Dictionary lays claim to over three hun-  
dred thousand. Of these many are obsolete, and  
many others are rarely used. Science has added  
a vast vocabulary of polysyllables that are scien-  
tific formulae rather than real words. They have  
no place in general literature. The ordinary  
English vocabulary may be said to contain from  
thirty to fifty thousand words, the latter esti-  
mate being largely increased. A well-read  
college graduate should be familiar with per-  
haps one hundred thousand words, while in the course  
of a year he might not use five thousand of them  
in his writing or conversation. Short-hand  
reporters find about 2500 words and contractions  
commonly used in the news columns, which are  
commonly used in public speaking.

WHAT MICROBES ARE.—"N. T.": Since  
Pasteur demonstrated the fact that many human  
diseases are due to minute living things called  
germs, and that our bodies are full of them, there has  
been a tendency, says the Century, to call all micro-  
scopic organisms, whether harmful or not,  
"germs" or "microbes" or "bacteria" indis-  
criminately. This confusion may be cleared by  
the statement that protozoa are the lowest known  
forms of animals and that bacteria are the low-  
est known forms of plants, while "germs" and  
"microbes" may apply to the disease-causing  
forms in either group.

—The perspective-graph is an ingenious in-  
strument with which Otto Eichenberger of  
Geneva makes it easy for the amateur artist to  
give accurate perspective to landscapes of draw-  
ings, and of any objects. A folding box opens to form  
a table, and near the top of its interior slides a  
telescope is so mounted that as it is moved about  
in following the details of any view a pencil is  
made to draw a corresponding line on a sheet of  
paper beneath. Crossed hairs in the telescope  
give precision, while the pencil is kept upon the  
paper by sliding up and down in a suitable  
holder. Beautiful drawings are made with little  
or no practice, and specimen work exhibited in-  
cludes a panorama of the Alps and a view of  
Geneva.

HOME DRESSMAKING.  
Blouse by Mrs. Mendenhall.

4707 Girl's "Buster"  
Brown Dress,  
4 to 12 years.  
4708 Blouse Waist,  
32 to 40 bust.

4709 Girl's "Buster"  
Brown Dress,  
4 to 12 years.  
4710 Blouse Waist,  
32 to 40 bust.

4711 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4712 Misses' Five  
Gored Skirt,  
12 to 16 years.

4713 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4714 Misses' Five  
Gored Skirt,  
12 to 16 years.

4715 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4716 Misses' Five  
Gored Skirt,  
12 to 16 years.

4717 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4718 Misses' Five  
Gored Skirt,  
12 to 16 years.

4719 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4720 Misses' Five  
Gored Skirt,  
12 to 16 years.

4721 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4722 Misses' Five  
Gored Skirt,  
12 to 16 years.

4723 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4724 Misses' Five  
Gored Skirt,  
12 to 16 years.

4725 Blouse or  
Shirt Waist,  
32 to 40 bust.  
4726 Misses' Five  
Gored Skirt,  
12 to 16 years



## The Horse.

When a horse begins to run down in flesh and eats sparingly or not at all, there are two things which should be given attention before resorting to medical treatment: One is the teeth, the other diet, says the Farm, Stock and Home. The "off-feed" horse is often in that condition because he can't eat, and because he has no desire to eat. He needs a dentist, and not medicine. If the teeth are all right, and the horse will not eat, it is often because he and his feed no longer harmonize. He may have been given one kind of feed so long and unintermittently that he has lost all desire for it; it has become obnoxious, in fact, and he cannot eat it. In such cases a change of diet is what the horse needs, and not medicine. Oats are a good and acceptable horse feed, and bread is equally so for man, but if the last is substantially the only feed man has for a long period, he will reject it to the extent of great loss of flesh; and under similar conditions the horse will reject oats. If neither teeth nor diet are responsible for the horse's condition, then other causes must be looked for. But in an astonishingly large number of instances the causes named will be found the real ones.

"You ask me," says John Madden, "if Lou Dillon's record will ever be broken. I would say 'sure,' as I believe, like our race horses, trotters are being bred speedier every year. Tracks are faster, sulky appliances and equipments are hourly being improved upon, and with continued improvements in the breed of trotters, twenty years from now 1.50 may be the champion mark, and two-minute horses by no means of unusual appearance. I look also for an expansion in trotting horse racing in the near future. The brilliant performances of stars like Lou Dillon, Major Delmar and Crescens in one season, with Dan Patch and Prince Alert among the pacers as side issues, have given the game a great boost, and the next few years will see much new capital invested in light-harness horses."

The Breeders' Gazette, in answering a question of a subscriber asking when a stallion may be expected to be at his best, says: "It is of record that colts of two years of age have sired better animals than at any later period in their stud careers. Again, it is equally a matter of history that in their extreme old age stallions have done their best work. It depends very much on the mares with which the horse is mated. The question, however, admits of a species of general reply which may be made in these terms. If it is taken for granted that the well-bred, well-reared stallion is in his prime between the years of six and fourteen, then it is within these years that he will do his best work, though for biological reasons there is nothing to prevent his doing equally good work from his date of puberty until senile decay puts a full stop to his career in the stud. It is much of a matter, so far as the stallion is concerned alone, of perfect health and proper treatment. A stallion which is overdone this season, and fed to ward off the ravages of nature while being so overdone, will never do as well either in number of colts begotten or in vigor transmitted the next season, and that much may be taken for gospel truth. Therefore the lesson to be learned is to keep the breeding horse in the best possible health by correct feeding and exercising and never overdo him in service. Then in the prime of his life he may be expected reasonably to do his best work in the stud, but, as stated, this reply is made only on the most general principles."

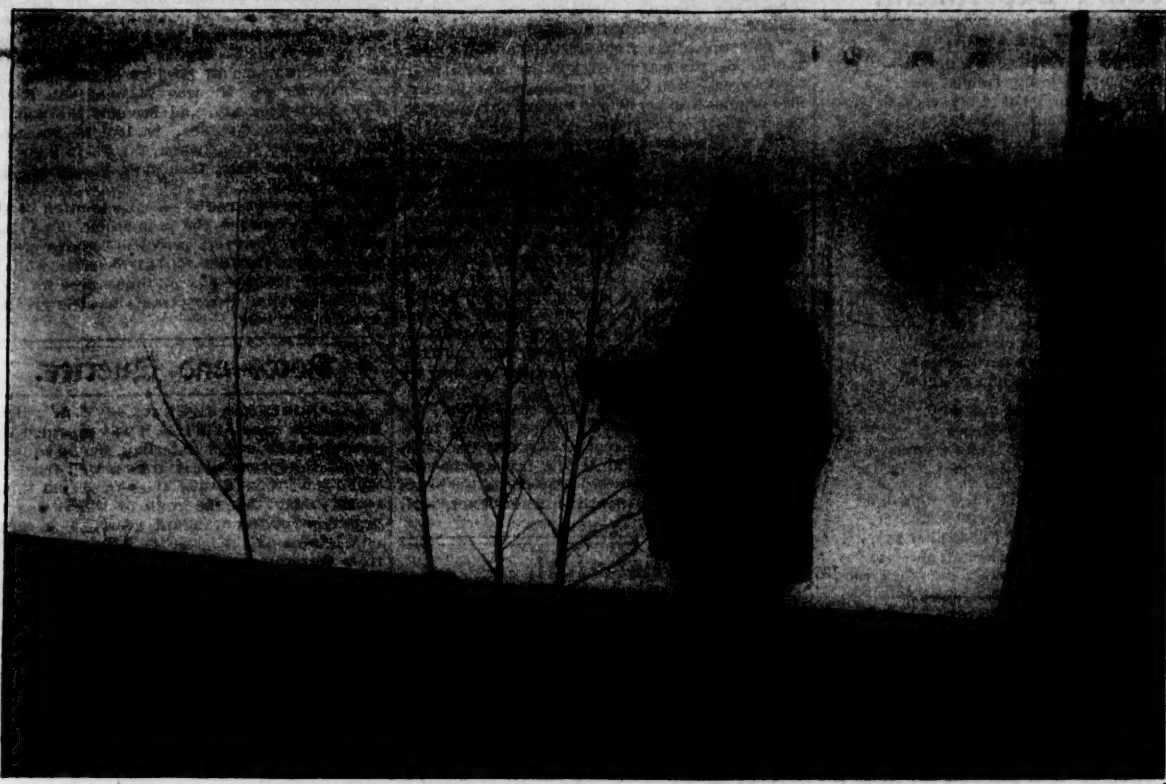
**Poultry on the Farm.**  
As a rule, farmers neglect the most profitable branch of stock raising, namely, poultry. On a New England farm the actual food bill ranges between sixty cents and \$1 per hen per year, depending on the price of grain and also to what extent the "by-products" of the farm are utilized as poultry food.

We find, taking one year with another, that a flock of good vigorous birds of the American varieties will average somewhere from 140 to 155 eggs each per year. Individual birds doubtless do better than this, but for a large flock a forty per cent. yield throughout the year is above the average. The average price per dozen for the year is about twenty-two cents in the Boston market, making an income of nearly \$3 each per year, or a profit of over \$2 each above cost of food. The cost of raising a pullet to the laying age is about equal to the price obtained for the fowl when dressed for poultry, so that the main question is the cost of food and labor compared to the egg yield.

For the farmer the care of two hundred hens should not require over two hours daily, with an occasional cleaning, dusting, kerosening, etc., on a stormy day in winter, and probably slightly more than half this time in summer. There are always unsalable vegetables, chaff and litter containing grain or seed, table scrap, meat scrap, bones, etc., on every farm which serve admirably for poultry food. The service which a flock of hens will render in an orchard in the way of insect, grub, moth and caterpillar destruction and the fertilization of the soil will nearly pay for their keeping through the summer.

We have a long house containing fourteen large pens and about twenty pens in colony houses, ranging in size from 5x7 feet to 15x20 feet, most of them, however, being 10x20 feet, with two pens in each. They house twenty-five to thirty hens per pen. These houses cost, when papered, about \$37 each and when shingled about \$50. In general, we find the cost of housing, on the colony plan, about eighty cents per hen, i. e., houses to contain one hundred hens would cost about \$80.

The American varieties are undoubtedly the most satisfactory for the farmer, and of these we find the Rhode Island Reds leaders. Besides being very hardy and productive, we find them better foragers and more easily kept, i. e., smaller eaters than either Rocks or Wyandottes. A far more important point, however, for the farmer is the fact that Reds need far less care (will stand more neglect) than the others and still be profitable. Although underfed animals rarely ever pay, still there is a great difference in the economy of digestion of



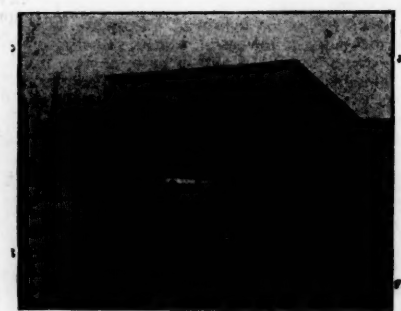
CHESTNUT SPROUTS BEFORE GRAFTING.

The Place Where the Sprout Is Grasped by the Fingers Shows the Height at Which It Should Be Cut Off and the Scion Inserted. See Article "Profit in Grafted Chestnuts."

different breeds, as well as of different individuals.

It pays to keep pure-bred stock. Fancy goods always bring an extra price. Uniformity in shape, size and color adds a fraction, which is clear profit, to the price of nearly every farm product. We find the size, shape and color, not only of the dressed poultry, but of the eggs as well, is much more uniform in thoroughbred stock than in mongrels.

Another advantage from thoroughbred stock is the revenue from breeding stock and eggs for hatching, the latter coming at a time when the market price for eggs is the lowest for the year. This brings up another point, one of the parts of his business which the farmer nearly always neglects—advertising—not spasmodic, once a year, but persistent all-the-year-round advertising. We have been advertising poultry and exhibiting only four years. Our first year's sales barely paid advertising, but we kept pegging away. Last year we sold over eight thousand eggs for hatching and about two hundred birds for breeders, and at the present time it looks as though this year's sales would be nearly double last year's. To succeed with poultry we believe the following



COLONY HOUSE AS A BREEDING PEN.

points should be adhered to: Get good stock; keep chicks growing steadily from hatch to maturity; always include animal food in the ration as well as plenty of green food the year around; give plenty of exercise, with good ventilation and dry quarters; aim to produce a superior article; finally, advertise. Drisko Farm, Addison, Me. D.

**Experience in Seeding Down.**  
In my experience of many years in seeding down for meadow which proves well, I sow timothy and add one-third clover either on oats or rye in early spring. The second year and afterwards the timothy will supersede the clover, and some other grass will of itself conceive, which makes fine hay, especially for horn cattle here on the Western Catskills.—George H. Bloodgood, Conesville, N. Y.

On poor or moderately rich soil a nurse crop is better; but on very rich soil, especially if heavily manured with stable manure, there is danger of the nurse crop growing so rank as to smother the timothy. On many farms in this locality, where a large amount of cottonseed meal has been fed for many years, it is often difficult to get a good catch of grass seed if sown with oats or barley. Next to good seed, the main essential is to have the soil in proper condition, taking its nature and fertility into consideration.—C. O. Ormsbee, Montpelier, Vt.

Mix timothy and redtop with ten pounds of clover to the acre with the above ten pounds each. Then to get the best results prepare the ground with plow and harrow until there is a fine seedbed and sow your seed the first or tenth of September.—E. M. Dunn.

For successful seeding land must be in good heart and fine tilth; roots of perennials and seeds of annuals must be killed. A nurse crop is better than weeds. Barley is the best for spring seeding. Rye is used for fall seeding and grass seed may be sown with it. This interferes with spring bushing or harrowing the rye, where the prime object is grass seed alone.—T. S. Gold, West Cornwall, Ct.

We should prefer sowing redtop with timothy, as one may fall and the other do well. The main point is to sow a liberal quantity of seed, and harrow not as deep, preferring autumn to spring in sowing.—J. L. Hersey, Centre Traftonboro, N. H.

In seeding a field to grass, we seed in the

spring with timothy and clover, three pecks of timothy and ten pounds of clover seed to the acre, with some kind of a grain crop, and always with good success; therefore we are in favor of some kind of nurse crop. There are three things necessary to make the seeding successful: A finely pulverized seedbed, plenty of seed and plenty of moisture. We can get the first by plowing well, then rolling and harrowing thoroughly, then sow plenty of seed and trust to Providence for the moisture. If we get it, we will have a good timothy and clover meadow the following year.—Charles J. Moore, Morrisville, Vt.

In establishing a timothy or mixed-grass meadow the main point is to get the soil fine and firm. This can be best and most economically accomplished by growing a crop of potatoes on the land, and after the potato crop is harvested, pulverize the soil with harrow and roller. Sow the seed as soon after Sept. 1 as conditions are favorable. The so-called "nurse crop" is a robber crop, although when one wishes to sow grass seed in the spring, three pecks of oats or barley sown per acre are preferable to the weed crop that will spring up where nothing but grass seed is sown. Or, a timothy meadow may be economically established by sowing the seed among standing corn in July, provided the corn is planted in hills 4x4 feet, and kept level by cultivating both ways and using a weeder.—S. A. Shaw, Auburn, Me.

**Northern Vermont Farm Notes.**  
Much labor was needed to get the badly drifted roads in a passable condition. But the large amount of snow went off so gradually that little damage was done, the ground appearing to absorb the water quickly. We have had in the vicinity of the writer 126 days of sleighing, good, bad and indifferent. This is a record seldom, if ever, exceeded before.

From some examination, the newly seeded grass fields have come through the winter in good condition. Being almost constantly covered with snow until so late has been of much advantage. On fields where there was much ice it must be different. With timely rains from now on there should be a good crop of hay.

Very little sugar has been made up to date. If the sap does not start to run freely as it becomes warmer, the prospect for much of a sugar season will not appear very promising. The exceedingly dry weather of the past season may have had an unfavorable effect on the production of sap, at least in northern Vermont.

The make of butter is steadily increasing, and prices are slowly tending downward. In our local markets the best quality in prints sold last week for twenty-two cents per pound. The large amount of old butter still in cold storage will have somewhat of a depressing effect on the sale of the new until it is practically out of the way. Before many weeks the cheese factories will be getting into operation, and that will tend to help the situation somewhat in relation to butter-making.

Potatoes are rotting to some extent in the cellars, and prices will probably be well maintained until another new crop comes into the market.

A good roads meeting has been held in Burlington and a State association is likely to be formed. The State commissioner of roads, J. O. Sandford of Stamford, is also soon to hold a series of meetings, one in each county, in which work for the season will be discussed and planned. Franklin County, Vt. E. R. Towle.

**Not A Dainty Queen.**

It could not be said that the late ex-Queen Isabella of Spain passed away full of years and honor, though she behaved herself with a reasonable amount of discretion of late years when the temptations of youth and middle age had passed away. That she was morally a detestable woman during the greater part of her career is generally conceded, and yet there is some excuse for her lack of virtue. She inherited from her mother, the notorious Maria Christina of the two Sicilies, a sensual nature, and she was brought up in a corrupt court where she did not learn how to control her inclinations. She was made a queen in 1833, when little more than an infant, with her maternal protector as regent. While she held this office Maria Christina was in constant trouble with Don Carlos, her brother-in-law, who, some contend, was the true heir to the throne, though the Salic law, providing for a male sovereign, was set aside to allow his young niece to wear a crown. He was the leader of a rebellion for seven years, making the country poor and miserable, and he was finally banished by the Cortez, but the regent was finally obliged to resign her place to Espartero, whom she had made prime minister, and went to Paris, where she remained until her daughter was declared of age. Meanwhile Espartero was overthrown, and then there was a military dictatorship under Marshal Narvaez.

Isabella made a loveless marriage with her cousin, Don Francisco d'Assis, when she was still a girl, because such a step was recommended by King Louis Philippe of

France as a political measure. After this her reign was a turbulent one, with more than one insurrection, until in 1868 she was obliged to flee to Paris upon the formation of a provisional republican government. She made her home in the French capital thereafter, except when she lived in Geneva during the Franco-Prussian war.

Her son, Alfonso XII, succeeded to the throne on her formal abdication in 1870, after the failure of the Castellar republican rule. He was the father of the present young king, who has no great cause to be proud of his grandmother, except for the many charitable deeds which she is said to have performed. However, generosity often goes with looseness of life, and many violators of divine and human laws are apt to regard charity as a convenient cloak for their many sins. Liberty, when one has plenty, may not be such a shining merit after all in the eyes of the recording angel who sets down, with satisfaction, the giving of the widow's mite. Benevolence, when it induces no self-denial, is akin to the giving away of the remnants of a meal which a person cannot consume. Nevertheless, Isabella may have had a charitable disposition, and perhaps she might have divided her last penny with the worthy beggar. Let us give her the benefit of the doubt.

She set a bad example to her four daughters, whose paternity, like that of her son, was sometimes questioned by a relative, though with how much truth it is impossible to say, since he circulated vile stories through interested motives. Her husband, who was accounted a poor stick, lived in Paris after her exile, though not with his wife.

—Old age is found by Professor Metchnikoff of the Pasteur Institute to be accompanied by the atrophy of the higher and specific cells of a tissue and their replacement by hypertrophied connective tissue. Certain of the simpler tissues, such as the outer skin and the mucous membrane, do not grow old, but the more specialized cells, like those of the brain, liver and kidneys, are actually destroyed and replaced, at first by wandering cells and later by connective tissue, both of which are less specialized forms of living matter, incapable of performing the functions of important organs. In this vain battle of the higher tissues against the more enduring lower ones, which constitutes the process of growing old, Professor Metchnikoff believes we should be able to take a voluntary part. That is, it may soon prove possible to inject a serum to strengthen the higher functions, and thus make old age a condition of health instead of disease.

—The stars are now known to vary greatly in size and brilliancy, as well as in distance from us, many being probably much smaller than our sun. Mr. J. E. Gore calculates that Aldebaran has a mass 80 times greater than our sun, and that the red Southern star Antares is 115 times brighter than Aldebaran, with a mass about eighty-eight thousand times the mass of the sun.

—The Finlen light is a specially constructed arc lamp of twenty thousand candle-power, or twenty times stronger than an ordinary street lamp, and it produces an unusually large percentage of violet rays. The concentrated rays are carried from the arc to the patient through tubes, all but the violet being screened out by lenses. The light is practically a specific to lupus and other skin diseases, and six years of experience in his Copenhagen institute—where three hundred persons are now treated daily—leads Professor Finlen to declare that ninety-seven per cent. of even the worst cases of lupus can be cured. In nearly eight hundred cases cured the disease had continued for an average of eleven years.

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